
cloudify-rest-client Documentation

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CHAPTER 1

What is it?

This rest client provides access to the REST API exposed by a [Cloudify manager](#).

This client's API tries to be as consistent as possible when accessing different resource types. The example below will fetch the blueprints currently uploaded to the manager.

```
from cloudify_rest_client import CloudifyClient

client = CloudifyClient('http://MANAGER_HOST')
blueprints = client.blueprints.list()

for blueprint in blueprints:
    print blueprint.id
```

Contents:

Blueprints API

class `cloudify_rest_client.blueprints.Blueprint` (*blueprint*)

Bases: dict

id

Returns The identifier of the blueprint.

created_at

Returns Timestamp of blueprint creation.

created_by

Returns The name of the blueprint creator.

main_file_name

Returns Blueprint main file name.

plan

Gets the plan the blueprint represents: nodes, relationships etc...

Returns The content of the blueprint.

description

Gets the description of the blueprint

Returns The description of the blueprint.

class `cloudify_rest_client.blueprints.BlueprintsClient` (*api*)

Bases: `object`

list (*_include=None, sort=None, is_descending=False, **kwargs*)

Returns a list of currently stored blueprints.

Parameters

- **_include** – List of fields to include in response.
- **sort** – Key for sorting the list.
- **is_descending** – True for descending order, False for ascending.
- **kwargs** – Optional filter fields. For a list of available fields see the REST service's `models.BlueprintState.fields`

Returns Blueprints list.

publish_archive (*archive_location, blueprint_id, blueprint_filename=None, private_resource=False, progress_callback=None*)

Publishes a blueprint archive to the Cloudify manager.

Parameters

- **archive_location** – Path or Url to the archive file.
- **blueprint_id** – Id of the uploaded blueprint.
- **blueprint_filename** – The archive's main blueprint yaml filename.
- **private_resource** – Whether the blueprint should be private
- **progress_callback** – Progress bar callback method

Returns Created blueprint.

Archive file should contain a single directory in which there is a blueprint file named *blueprint_filename* (if *blueprint_filename* is None, this value will be passed to the REST service where a default value should be used). Blueprint ID parameter is available for specifying the blueprint's unique Id.

static calc_size (*blueprint_path*)

upload (*blueprint_path, blueprint_id, private_resource=False, progress_callback=None*)

Uploads a blueprint to Cloudify's manager.

Parameters

- **blueprint_path** – Main blueprint yaml file path.
- **blueprint_id** – Id of the uploaded blueprint.
- **private_resource** – Whether the blueprint should be private
- **progress_callback** – Progress bar callback method

Returns Created blueprint.

Blueprint path should point to the main yaml file of the blueprint to be uploaded. Its containing folder will be packed to an archive and get uploaded to the manager. Blueprint ID parameter is available for specifying the blueprint's unique Id.

get (*blueprint_id*, *_include=None*)
Gets a blueprint by its id.

Parameters

- **blueprint_id** – Blueprint’s id to get.
- **_include** – List of fields to include in response.

Returns The blueprint.

delete (*blueprint_id*)

Deletes the blueprint whose id matches the provided blueprint id.

Parameters **blueprint_id** – The id of the blueprint to be deleted.

Returns Deleted blueprint.

download (*blueprint_id*, *output_file=None*, *progress_callback=None*)

Downloads a previously uploaded blueprint from Cloudify’s manager.

Parameters

- **blueprint_id** – The Id of the blueprint to be downloaded.
- **progress_callback** – Callback function for printing a progress bar
- **output_file** – The file path of the downloaded blueprint file (optional)

Returns The file path of the downloaded blueprint.

add_permission (*blueprint_id*, *users*, *permission*)

remove_permission (*blueprint_id*, *users*, *permission*)

Client API

class `cloudify_rest_client.client.StreamedResponse` (*response*)

Bases: object

headers

bytes_stream (*chunk_size=8192*)

lines_stream ()

close ()

class `cloudify_rest_client.client.CloudifyClient` (*host='localhost', port=None, protocol='http', api_version='v3.1', headers=None, query_params=None, cert=None, trust_all=False, username=None, password=None, token=None, tenant=None*)

Bases: object

Cloudify’s management client.

client_class

alias of HTTPClient

Deployments API

class `cloudify_rest_client.deployments.Deployment` (*deployment*)

Bases: dict

Cloudify deployment.

id

Returns The identifier of the deployment.

blueprint_id

Returns The identifier of the blueprint this deployment belongs to.

created_by

Returns The name of the deployment creator.

workflows

Returns The workflows of this deployment.

inputs

Returns The inputs provided on deployment creation.

outputs

Returns The outputs definition of this deployment.

description

Returns The description of this deployment.

class `cloudify_rest_client.deployments.Workflow` (*workflow*)

Bases: dict

id

Returns The workflow's id

name

Returns The workflow's name

parameters

Returns The workflow's parameters

class `cloudify_rest_client.deployments.DeploymentOutputs` (*outputs*)

Bases: dict

deployment_id

Deployment Id the outputs belong to.

outputs

Deployment outputs as dict.

class `cloudify_rest_client.deployments.DeploymentOutputsClient` (*api*)

Bases: object

get (*deployment_id*)

Gets the outputs for the provided deployment's Id.

Parameters `deployment_id` – Deployment Id to get outputs for.

Returns Outputs as dict.

class `cloudify_rest_client.deployments.DeploymentsClient` (*api*)

Bases: `object`

list (*_include=None, sort=None, is_descending=False, **kwargs*)

Returns a list of all deployments.

Parameters

- **_include** – List of fields to include in response.
- **sort** – Key for sorting the list.
- **is_descending** – True for descending order, False for ascending.
- **kwargs** – Optional filter fields. for a list of available fields see the REST service's models.Deployment.fields

Returns Deployments list.

get (*deployment_id, _include=None*)

Returns a deployment by its id.

Parameters

- **deployment_id** – Id of the deployment to get.
- **_include** – List of fields to include in response.

Returns Deployment.

create (*blueprint_id, deployment_id, inputs=None, private_resource=False, skip_plugins_validation=False*)

Creates a new deployment for the provided blueprint id and deployment id.

Parameters

- **blueprint_id** – Blueprint id to create a deployment of.
- **deployment_id** – Deployment id of the new created deployment.
- **inputs** – Inputs dict for the deployment.
- **private_resource** – Whether the deployment should be private
- **skip_plugins_validation** – Determines whether to validate if the required deployment plugins exist on the manager. If validation is skipped, plugins containing source URL will be installed from source.

Returns The created deployment.

delete (*deployment_id, ignore_live_nodes=False*)

Deletes the deployment whose id matches the provided deployment id. By default, deployment with live nodes deletion is not allowed and this behavior can be changed using the `ignore_live_nodes` argument.

Parameters

- **deployment_id** – The deployment's to be deleted id.
- **ignore_live_nodes** – Determines whether to ignore live nodes.

Returns The deleted deployment.

add_permission (*deployment_id, users, permission*)

remove_permission (*deployment_id, users, permission*)

Deployment Modifications API

class `cloudify_rest_client.deployment_modifications.DeploymentModificationNodeInstances` (*node_instances*)

Bases: `dict`

added_and_related

List of added nodes and nodes that are related to them

removed_and_related

List of removed nodes and nodes that are related to them

before_modification

List of node instances with their state as it existed before the deployment modification started

before_rollback

If deployment modification was rolledback, this will be a list of node instances with their state as it existed before the deployment modification was rolledback

class `cloudify_rest_client.deployment_modifications.DeploymentModification` (*modification*)

Bases: `dict`

STARTED = 'started'

FINISHED = 'finished'

ROLLEDBACK = 'rolledback'

id

Deployment modification id

status

Deployment modification status

deployment_id

Deployment Id the outputs belong to.

node_instances

Dict containing `added_and_related` and `remove_and_related` node instances list

modified_nodes

Dict containing original modified nodes that started this modification

created_at

Deployment modification creation date

ended_at

Deployment modification end date

context

Dict containing context that has been attached to modification.

This context has no predefined schema. Its structure can be whatever has been attached to the modification when it was started.

class `cloudify_rest_client.deployment_modifications.DeploymentModificationsClient` (*api*)

Bases: `object`

list (*deployment_id=None, _include=None, **kwargs*)

List deployment modifications

Parameters

- **deployment_id** – The deployment id (optional)

- **kwargs** – Optional filter fields. for a list of available fields see the REST service’s models.DeploymentModification.fields

start (*deployment_id, nodes, context=None*)

Start deployment modification.

Parameters

- **deployment_id** – The deployment id
- **nodes** – the nodes to modify

Returns DeploymentModification dict

Return type *DeploymentModification*

get (*modification_id, _include=None*)

Get deployment modification

Parameters **modification_id** – The modification id

finish (*modification_id*)

Finish deployment modification

Parameters **modification_id** – The modification id

rollback (*modification_id*)

Rollback deployment modification

Parameters **modification_id** – The modification id

Events API

class cloudify_rest_client.events.**EventsClient** (*api*)

Bases: object

get (*execution_id, from_event=0, batch_size=100, include_logs=False*)

Returns event for the provided execution id.

Parameters

- **execution_id** – Id of execution to get events for.
- **from_event** – Index of first event to retrieve on pagination.
- **batch_size** – Maximum number of events to retrieve per call.
- **include_logs** – Whether to also get logs.

Returns Events list and total number of currently available events (tuple).

list (*include_logs=False, message=None, from_datetime=None, to_datetime=None, _include=None, sort=None, **kwargs*)

List events

Parameters

- **include_logs** – Whether to also get logs.
- **message** – an expression used for wildcard search events by their message text
- **from_datetime** – search for events later or equal to datetime
- **to_datetime** – search for events earlier or equal to datetime

- **_include** – return only an exclusive list of fields
- **sort** – Key for sorting the list.

Returns dict with ‘metadata’ and ‘items’ fields

delete (*deployment_id*, *include_logs=False*, *message=None*, *from_datetime=None*,
to_datetime=None, *sort=None*, ***kwargs*)
Delete events connected to a Deployment ID

Parameters

- **deployment_id** – The ID of the deployment
- **include_logs** – Whether to also get logs.
- **message** – an expression used for wildcard search events by their message text
- **from_datetime** – search for events later or equal to datetime
- **to_datetime** – search for events earlier or equal to datetime
- **sort** – Key for sorting the list.

Returns dict with ‘metadata’ and ‘items’ fields

Exceptions API

exception `cloudify_rest_client.exceptions.CloudifyClientError` (*message*,
server_traceback=None,
status_code=-1, *er-*
ror_code=None,
response=None)

Bases: `exceptions.Exception`

exception `cloudify_rest_client.exceptions.DeploymentEnvironmentCreationInProgressError` (*message*,
server_tr
status_co
1,
er-
ror_code
re-
sponse=l)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when there’s attempt to execute a deployment workflow and deployment environment creation workflow execution is still running. In such a case, workflow execution should be retried after a reasonable time or after the execution of deployment environment creation workflow has terminated.

ERROR_CODE = ‘deployment_environment_creation_in_progress_error’

exception `cloudify_rest_client.exceptions.DeploymentEnvironmentCreationPendingError` (*message*,
server_traceb
status_code=-
1,
er-
ror_code=No
re-
sponse=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when there's attempt to execute a deployment workflow and deployment environment creation workflow execution is pending. In such a case, workflow execution should be retried after a reasonable time or after the execution of deployment environment creation workflow has terminated.

ERROR_CODE = 'deployment_environment_creation_pending_error'

```
exception cloudify_rest_client.exceptions.IllegalExecutionParametersError (message,
                                                                    server_traceback=None,
                                                                    status_code=-
                                                                    1,
                                                                    er-
                                                                    ror_code=None,
                                                                    re-
                                                                    sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when an attempt to execute a workflow with wrong/missing parameters has been made.

ERROR_CODE = 'illegal_execution_parameters_error'

```
exception cloudify_rest_client.exceptions.NoSuchIncludeFieldError (message,
                                                                    server_traceback=None,
                                                                    status_code=-
                                                                    1,
                                                                    er-
                                                                    ror_code=None,
                                                                    re-
                                                                    sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when an `_include` query parameter contains a field which does not exist for the queried data model.

ERROR_CODE = 'no_such_include_field_error'

```
exception cloudify_rest_client.exceptions.MissingRequiredDeploymentInputError (message,
                                                                    server_traceback=None,
                                                                    status_code=-
                                                                    1,
                                                                    er-
                                                                    ror_code=None,
                                                                    re-
                                                                    sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a required deployment input was not specified on deployment creation.

ERROR_CODE = 'missing_required_deployment_input_error'

```
exception cloudify_rest_client.exceptions.UnknownDeploymentInputError (message,
                                                                    server_traceback=None,
                                                                    status_code=-
                                                                    1,
                                                                    er-
                                                                    ror_code=None,
                                                                    re-
                                                                    sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when an unexpected input was specified on deployment creation.

ERROR_CODE = 'unknown_deployment_input_error'

exception `cloudify_rest_client.exceptions.UnknownDeploymentSecretError` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a required secret was not found on deployment creation.

ERROR_CODE = 'unknown_deployment_secret_error'

exception `cloudify_rest_client.exceptions.UnsupportedDeploymentGetSecretError` (*message*,
server_traceback=None,
status_code=-1,
error_code=None,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when an unsupported `get_secret` intrinsic function appears in the blueprint on deployment creation.

ERROR_CODE = 'unsupported_deployment_get_secret_error'

exception `cloudify_rest_client.exceptions.FunctionsEvaluationError` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when function evaluation failed.

ERROR_CODE = 'functions_evaluation_error'

exception `cloudify_rest_client.exceptions.UnknownModificationStageError` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when an unknown modification stage was provided.

ERROR_CODE = 'unknown_modification_stage_error'

exception `cloudify_rest_client.exceptions.ExistingStartedDeploymentModificationError` (*message*,
server_traceback=None,
status_code=-1,
error_code=None,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a deployment modification start is attempted while another deployment modification is currently started

ERROR_CODE = 'existing_started_deployment_modification_error'

```
exception cloudify_rest_client.exceptions.DeploymentModificationAlreadyEndedError (message,
                                                                    server_traceback
                                                                    status_code=-
                                                                    1,
                                                                    er-
                                                                    ror_code=None,
                                                                    re-
                                                                    sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a deployment modification finish/rollback is attempted on a deployment modification that has already been finished/rolledback

ERROR_CODE = 'deployment_modification_already_ended_error'

```
exception cloudify_rest_client.exceptions.UserUnauthorizedError (message,
                                                                    server_traceback=None,
                                                                    status_code=-1,
                                                                    error_code=None,
                                                                    response=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a call has been made to a secured resource with an unauthorized user (no credentials / bad credentials)

ERROR_CODE = 'unauthorized_error'

```
exception cloudify_rest_client.exceptions.PluginInUseError (message,
                                                                    server_traceback=None,
                                                                    status_code=-1,      er-
                                                                    ror_code=None,      re-
                                                                    sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised if a central deployment agent plugin deletion is attempted and at least one deployment is currently using this plugin.

ERROR_CODE = 'plugin_in_use'

```
exception cloudify_rest_client.exceptions.PluginInstallationError (message,
                                                                    server_traceback=None,
                                                                    status_code=-
                                                                    1,      er-
                                                                    ror_code=None,
                                                                    re-
                                                                    sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised if a central deployment agent plugin installation fails.

ERROR_CODE = 'plugin_installation_error'

exception `cloudify_rest_client.exceptions.PluginInstallationTimeout` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised if a central deployment agent plugin installation times out.

ERROR_CODE = 'plugin_installation_timeout'

exception `cloudify_rest_client.exceptions.MaintenanceModeActiveError` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a call has been blocked due to maintenance mode being active.

ERROR_CODE = 'maintenance_mode_active'

exception `cloudify_rest_client.exceptions.MaintenanceModeActivatingError` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a call has been blocked while maintenance mode is activating.

ERROR_CODE = 'entering_maintenance_mode'

exception `cloudify_rest_client.exceptions.NotModifiedError` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a 304 not modified error was returned

ERROR_CODE = 'not_modified'

exception `cloudify_rest_client.exceptions.InvalidExecutionUpdateStatus` (*message*,
server_traceback=None,
status_code=-1, *error_code=None*,
response=None)

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when execution update failed do to invalid status update

ERROR_CODE = 'invalid_exception_status_update'

```
exception cloudify_rest_client.exceptions.NotClusterMaster (message,
                                                         server_traceback=None,
                                                         status_code=-1,      er-
                                                         ror_code=None,      re-
                                                         sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when the request was served by a manager that is not the master node of a manager cluster. The client should query for the cluster status to learn the master's address, and retry the request. If the client stores the server address, it should update the storage with the new master node address.

ERROR_CODE = 'not_cluster_master'

```
exception cloudify_rest_client.exceptions.RemovedFromCluster (message,
                                                                server_traceback=None,
                                                                status_code=-1,      er-
                                                                ror_code=None,
                                                                response=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when attempting to contact a manager that was removed from a cluster. The client should retry the request with another manager in the cluster. If the client stores the server address, it should remove this node's address from storage.

ERROR_CODE = 'removed_from_cluster'

```
exception cloudify_rest_client.exceptions.DeploymentPluginNotFound (message,
                                                                      server_traceback=None,
                                                                      status_code=-
                                                                      1,      er-
                                                                      ror_code=None,
                                                                      re-
                                                                      sponse=None)
```

Bases: `cloudify_rest_client.exceptions.CloudifyClientError`

Raised when a plugin is listed in the blueprint but is not installed on the manager.

ERROR_CODE = 'deployment_plugin_not_found'

```
cloudify_rest_client.exceptions.error
  alias of DeploymentPluginNotFound
```

Executions API

```
class cloudify_rest_client.executions.Execution (execution)
```

Bases: dict

Cloudify workflow execution.

id

Returns The execution's id.

deployment_id

Returns The deployment's id this execution is related to.

status

Returns The execution's status.

error

Returns The execution error in a case of failure, otherwise None.

workflow_id

Returns The id of the workflow this execution represents.

parameters

Returns The execution's parameters

is_system_workflow

Returns True if the workflow executed is a system workflow, otherwise False

created_at

Returns The execution creation time.

created_by

Returns The name of the execution creator.

class `cloudify_rest_client.executions.ExecutionClient` (*api*)

Bases: `object`

list (*deployment_id=None, include_system_workflows=False, _include=None, sort=None, is_descending=False, **kwargs*)
Returns a list of executions.

Parameters

- **deployment_id** – Optional deployment id to get executions for.
- **include_system_workflows** – Include executions of system workflows
- **_include** – List of fields to include in response.
- **sort** – Key for sorting the list.
- **is_descending** – True for descending order, False for ascending.
- **kwargs** – Optional filter fields. For a list of available fields see the REST service's `models.Execution.fields`

Returns Executions list.

get (*execution_id, _include=None*)

Get execution by its id.

Parameters

- **execution_id** – Id of the execution to get.
- **_include** – List of fields to include in response.

Returns Execution.

update (*execution_id, status, error=None*)

Update execution with the provided status and optional error.

Parameters

- **execution_id** – Id of the execution to update.
- **status** – Updated execution status.
- **error** – Updated execution error (optional).

Returns Updated execution.

start (*deployment_id*, *workflow_id*, *parameters=None*, *allow_custom_parameters=False*, *force=False*)

Starts a deployment's workflow execution whose id is provided.

Parameters

- **deployment_id** – The deployment's id to execute a workflow for.
- **workflow_id** – The workflow to be executed id.
- **parameters** – Parameters for the workflow execution.
- **allow_custom_parameters** – Determines whether to allow parameters which weren't defined in the workflow parameters schema in the blueprint.
- **force** – Determines whether to force the execution of the workflow in a case where there's an already running execution for this deployment.

Raises IllegalExecutionParametersError

Returns The created execution.

cancel (*execution_id*, *force=False*)

Cancels the execution which matches the provided execution id.

Parameters

- **execution_id** – Id of the execution to cancel.
- **force** – Boolean describing whether to send a 'cancel' or a 'force-cancel' action # NOQA

Returns Cancelled execution.

Manager API

class `cloudify_rest_client.manager.ManagerClient` (*api*)

Bases: `object`

get_status ()

Returns Cloudify's management machine status.

get_version ()

Returns Cloudify's management machine version information.

ssl_status ()

Get manager's ssl state (enabled/disabled)

set_ssl (*state*)

Set manager's ssl to state (true/false)

get_context (*_include=None*)

Gets the context which was stored on management machine bootstrap. The context contains Cloudify specific information and Cloud provider specific information.

Parameters **_include** – List of fields to include in response.

Returns Context stored in manager.

create_context (*name, context*)

Creates context in Cloudify's management machine. This method is usually invoked right after management machine bootstrap with relevant Cloudify and cloud provider context information.

Parameters

- **name** – Cloud provider name.
- **context** – Context as dict.

Returns Create context result.

update_context (*name, context*)

Updates context in Cloudify's management machine. The context is imperative for the manager to function properly, only use this method if you know exactly what you are doing. Note that if the provider context does not exist, this call will result with an error.

Parameters

- **name** – Cloud provider name.
- **context** – Context as dict.

Node Instances API

class `cloudify_rest_client.node_instances.NodeInstance`

Bases: `dict`

Cloudify node instance.

id

Returns The identifier of the node instance.

node_id

Returns The identifier of the node whom this is in instance of.

relationships

Returns The node instance relationships.

host_id

Returns The node instance `host_id`.

deployment_id

Returns The deployment id the node instance belongs to.

created_by

Returns The name of the node instance creator.

runtime_properties

Returns The runtime properties of the node instance.

state

Returns The current state of the node instance.

version

Returns The current version of the node instance (used for optimistic locking on update)

scaling_groups

Returns Scaling group instances this node instance belongs to.

class `cloudify_rest_client.node_instances.NodeInstancesClient` (*api*)

Bases: `object`

get (*node_instance_id*, *_include=None*, *evaluate_functions=False*)

Returns the node instance for the provided node instance id.

Parameters

- **node_instance_id** – The identifier of the node instance to get.
- **_include** – List of fields to include in response.
- **evaluate_functions** – Evaluate intrinsic functions

Returns The retrieved node instance.

update (*node_instance_id*, *state=None*, *runtime_properties=None*, *version=1*)

Update node instance with the provided state & runtime_properties.

Parameters

- **node_instance_id** – The identifier of the node instance to update.
- **state** – The updated state.
- **runtime_properties** – The updated runtime properties.
- **version** – Current version value of this node instance in Cloudfify's storage (used for optimistic locking).

Returns The updated node instance.

list (*deployment_id=None*, *node_name=None*, *node_id=None*, *_include=None*, *sort=None*, *is_descending=False*, ***kwargs*)

Returns a list of node instances which belong to the deployment identified by the provided deployment id.

Parameters

- **deployment_id** – Optional deployment id to list node instances for.
- **node_name** – Optional node name to only fetch node instances with this name. The `node_name` positional argument will be deprecated as of the next rest-client version. Use `node_id` instead.
- **node_id** – Equivalent to `node_name`.
- **_include** – List of fields to include in response.
- **sort** – Key for sorting the list.
- **is_descending** – True for descending order, False for ascending.
- **kwargs** – Optional filter fields. for a list of available fields see the REST service's `models.DeploymentNodeInstance.fields`

Returns Node instances.

Return type *list*

Nodes API

class `cloudify_rest_client.nodes.Node`

Bases: `dict`

Cloudify node.

id

Returns The identifier of the node.

deployment_id

Returns The deployment id the node belongs to.

created_by

Returns The name of the node creator.

properties

Returns The static properties of the node.

operations

Returns The node operations mapped to plugins.

Return type `dict`

relationships

Returns The node relationships with other nodes.

Return type *list*

blueprint_id

Returns The id of the blueprint this node belongs to.

Return type `str`

plugins

Returns The plugins this node has operations mapped to.

Return type `dict`

number_of_instances

Returns The number of instances this node has.

Return type `int`

planned_number_of_instances

Returns The planned number of instances this node has.

Return type `int`

deploy_number_of_instances

Returns The number of instances this set for this node when the deployment was created.

Return type `int`

host_id

Returns The id of the node instance which hosts this node.

Return type `str`

type_hierarchy

Returns The type hierarchy of this node.

Return type *list*

type

Returns The type of this node.

Return type *str*

class `cloudify_rest_client.nodes.NodesClient` (*api*)

Bases: `object`

list (*deployment_id=None, node_id=None, _include=None, sort=None, is_descending=False, evaluate_functions=False, **kwargs*)

Returns a list of nodes which belong to the deployment identified by the provided deployment id.

Parameters

- **deployment_id** – The deployment’s id to list nodes for.
- **node_id** – If provided, returns only the requested node. This parameter is deprecated, use ‘id’ instead.
- **_include** – List of fields to include in response.
- **sort** – Key for sorting the list.
- **is_descending** – True for descending order, False for ascending.
- **kwargs** – Optional filter fields. for a list of available fields see the REST service’s models.`DeploymentNode.fields`
- **evaluate_functions** – Evaluate intrinsic functions

Returns Nodes.

Return type *list*

get (*deployment_id, node_id, _include=None, evaluate_functions=False*)

Returns the node which belongs to the deployment identified by the provided deployment id .

Parameters

- **deployment_id** – The deployment’s id of the node.
- **node_id** – The node id.
- **_include** – List of fields to include in response.
- **evaluate_functions** – Evaluate intrinsic functions

Returns Nodes.

Return type *Node*

Search API

class `cloudify_rest_client.search.SearchClient` (*api*)

Bases: `object`

run_query (*query*)

Run the provided Elasticsearch query.

Parameters `query` – Elasticsearch query.

Returns Elasticsearch result hits.

Evaluate API

class `cloudify_rest_client.evaluate.EvaluatedFunctions` (*evaluated_functions*)

Bases: dict

Evaluated functions.

deployment_id

Returns The deployment id this request belongs to.

payload

Returns The evaluation payload.

class `cloudify_rest_client.evaluate.EvaluateClient` (*api*)

Bases: object

functions (*deployment_id, context, payload*)

Evaluate intrinsic functions in payload in respect to the provided context.

Parameters

- **deployment_id** – The deployment's id of the node.
- **context** – The processing context (dict with optional self, source, target).
- **payload** – The payload to process.

Returns The payload with its intrinsic functions references evaluated.

Return type *EvaluatedFunctions*

Tokens API

class `cloudify_rest_client.tokens.Token` (*token*)

Bases: dict

value

Returns The value of the token.

role

Returns The role of the user associated with the token

class `cloudify_rest_client.tokens.TokensClient` (*api*)

Bases: object

get ()

Get an authentication token.

Return type *Token*

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