



## **Rackspace Autoscale Reference**

API v1.0 (2013-07-02)

Copyright © 2013

Copyright © 2013 Rackspace US, Inc. All rights reserved.

The document is for informational purposes only and is provided "AS IS."

RACKSPACE MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS DOCUMENT AND RESERVES THE RIGHT TO MAKE CHANGES TO SPECIFICATIONS AND PRODUCT/SERVICES DESCRIPTION AT ANY TIME WITHOUT NOTICE. RACKSPACE SERVICES OFFERINGS ARE SUBJECT TO CHANGE WITHOUT NOTICE. USERS MUST TAKE FULL RESPONSIBILITY FOR APPLICATION OF ANY SERVICES MENTIONED HEREIN. EXCEPT AS SET FORTH IN RACKSPACE GENERAL TERMS AND CONDITIONS AND/OR CLOUD TERMS OF SERVICE, RACKSPACE ASSUMES NO LIABILITY WHATSOEVER, AND DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO ITS SERVICES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT.

Except as expressly provided in any written license agreement from Rackspace, the furnishing of this document does not give you any license to patents, trademarks, copyrights, or other intellectual property.

Rackspace®, Rackspace logo and Fanatical Support® are registered service marks of Rackspace US, Inc. All other product names and trademarks used in this document are for identification purposes only and are property of their respective owners.

# **Table of Contents**

1. Overview	1
1.1. Document Change History	1
1.2. Additional Resources	. 1
2. API Reference	. 2
2.1. Group Resource	3
2.1.1. List Autoscaling Groups	. 4
2.1.2. POST	. 5
2.1.3. GET	. 9
2.1.4. DELETE	11
2.1.5. GET	12
2.2. Configuration Resource	13
2.2.1. GET	14
2.2.2. PUT	15
2.2.3. GET	16
2.2.4. PUT	17
2.2.5. POST	18
2.2.6. POST	19
2.3. Policies Resource	19
2.3.1. GET	20
2.3.2. POST	22
2.3.3. GET	24
2.3.4. PUT	25
2.3.5. DELETE	26
2.3.6. POST	27
2.4. Execute Resource	27
2.4.1. POST	28
2.5. Webhooks Resource	28
2.5.1. GET	29
2.5.2. POST	31
2.5.3. GET	33
2.5.4. PUT	34
2.5.5. DELETE	35

# **List of Tables**

2.1. List Autoscaling Groups Request Parameters	4
2.2. POST Request Parameters	
2.3. GET Request Parameters	. 9
2.4. DELETE Request Parameters	11
2.5. GET Request Parameters	12
2.6. GET Request Parameters	14
2.7. PUT Request Parameters	15
2.8. GET Request Parameters	16
2.9. PUT Request Parameters	17
2.10. POST Request Parameters	18
2.11. POST Request Parameters	19
2.12. GET Request Parameters	20
2.13. POST Request Parameters	22
2.14. GET Request Parameters	24
2.15. PUT Request Parameters	25
2.16. DELETE Request Parameters	26
2.17. POST Request Parameters	27
2.18. POST Request Parameters	28
2.19. GET Request Parameters	29
2.20. POST Request Parameters	31
2.21. GET Request Parameters	33
2.22. PUT Request Parameters	34
2.23. DELETE Request Parameters	35

# **List of Examples**

2.1. List Autoscaling Groups Request: JSON	. 4
2.2. List Autoscaling Groups Response: JSON	
2.3. Request: JSON	. 5
2.4. Response: JSON	
2.5. Request: JSON	. 9
2.6. Response: JSON	
2.7. Request: JSON	11
2.8. Request: JSON	12
2.9. Response: JSON	
2.10. Request: JSON	
2.11. Response: JSON	
2.12. Request: JSON	
2.13. Request: JSON	
2.14. Response: JSON	
2.15. Request: JSON	
2.16. Request: JSON	18
2.17. Request: JSON	19
2.18. Request: JSON	20
2.19. Response: JSON	
2.20. Request: JSON	
2.21. Response: JSON	
2.22. Request: JSON	
2.23. Response: JSON	
2.24. Request: JSON	
2.25. Request: JSON	
2.26. Request: JSON	
2.27. Response: JSON	
2.28. Request: JSON	28
2.29. Response: JSON	
2.30. Request: JSON	
2.31. Response: JSON	29
2.32. Request: JSON	31
2.33. Response: JSON	31
2.34. Request: JSON	33
2.35. Response: JSON	33
2.36. Request: JSON	34
2.37. Request: JSON	35

## 1. Overview

The Rackspace Autoscale service responds to events by changing capacity to meet current needs. This ability to expand the configuration in response to increased workload means that you can begin with a minimal cloud configuration and grow only when the cost of that growth is justified.

## 1.1. Document Change History

This version of the document replaces and obsoletes all previous versions. The most recent changes are described in the following table:

Revision Date	Summary of Changes	
Jul 2, 2013	Initial draft for preview release.	

## 1.2. Additional Resources

You can see and experiment with all Rackspace Autoscale API calls at http://docs.autoscale.apiary.io/.

To use Rackspace Autoscale, you will have to be able to set cloud monitoring alarms and create cloud servers and cloud load balancers. You can read API documentation for those and other Rackspace services at <a href="http://docs.rackspace.com/">http://docs.rackspace.com/</a>.

# 2. API Reference

URI	Description			
Group I	Resource			
v1.0/{tenantId}/groups	Lists all the autoscaling groups for the specified tenant ID.			
v1.0/{tenantId}/groups	Create a new scaling group, given the general scaling group configuration, launch configuration, and optional scaling policies. This data provided in the request body in JSON format. If successful, the created group in JSON format containing id and links is returned.			
v1.0/{tenantId}/groups/{groupId}	View manifested view of the scaling group configuration, including the launch configuration, and the scaling policies. This data is returned in the body of the response in JSON format.			
v1.0/{tenantId}/groups/{groupId}	Delete a scaling group if there are no entities belonging to the scaling group. If successful, no response body will be returned. If there are pending or active entities, a 409 will be returned.			
v1.0/{tenantId}/groups/{groupId}/ state	Get the current state of the scaling group, including the current set of active entities, the number of pending entities, and the desired number of entities. This data is returned in the body of the response in JSON format.			
Configurati	on Resource			
v1.0/{tenantId}/groups/{groupId}/ config	Get the configuration for a scaling group, which includes the minimum number of entities, the maximum number of entities, global cooldown, and other metadata. This data is returned in the body of the response in JSON format.			
v1.0/{tenantId}/groups/{groupId}/ config	Edit the configuration for a scaling group, which includes the minimum number of entities, the maximum number of entities, global cooldown, and other metadata. This data provided in the request body in JSON format. If successful, no response body will be returned.			
v1.0/{tenantId}/groups/{groupId}/launch	Get the launch configuration for a scaling group, which includes the details of how to create a server, from what image, which load balancers to join it to, and what networks to add it to, and other metadata. This data is returned in the body of the response in JSON format.			
v1.0/{tenantId}/groups/{groupId}/ launch	Edit the launch configuration for a scaling group, which includes the details of how to create a server, from what image, which load balancers to join it to, and what networks to add it to, and other metadata. This data provided in the request body in JSON format. If successful, no response body will be returned.			
v1.0/{tenantId}/groups/{groupId}/ pause	Pause all execution of scaling policies for this scaling group.			
v1.0/{tenantId}/groups/{groupId}/ resume	Resume all execution of scaling policies for this scaling group.			
Policies Resource				
v1.0/{tenantId}/groups/{groupId}/ policies	Get a list of scaling policies in the group. Each policy describes an id, name, type, adjustment, cooldown, and links. This data is returned in the body of the response in JSON format.			
v1.0/{tenantId}/groups/{groupId}/ policies	Create one or many new scaling policies. Scaling policies must include a name, type, adjustment, and cooldown. The response header will point to the list policies endpoint. An array of scaling policies is provided in the request body in JSON format.			
	V1.0/{tenantId}/groups   V1.0/{tenantId}/groups   V1.0/{tenantId}/groups/{groupId}   V1.0/{tenantId}/groups/{groupId}   V1.0/{tenantId}/groups/{groupId}/state   V1.0/{tenantId}/groups/{groupId}/config   V1.0/{tenantId}/groups/{groupId}/config   V1.0/{tenantId}/groups/{groupId}/config   V1.0/{tenantId}/groups/{groupId}/launch   V1.0/{tenantId}/groups/{groupId}/launch   V1.0/{tenantId}/groups/{groupId}/launch   V1.0/{tenantId}/groups/{groupId}/resume   V1.0/{tenantId}/resume   V1.0/{tenantId}/resum			

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}	Get a scaling policy which describes an id, name, type, adjustment, and cooldown, and links. This data is returned in the body of the response in JSON format.
PUT	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}	Updates a scaling policy. Scaling policies must include a name, type, adjustment, and cooldown. If successful, no response body will be returned.
DELETE	v1.0/{tenantId}/groups/{groupId}/policies/{policyId}	Delete a scaling policy. If successful, no response body will be returned.
POST	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/execute	Execute a scaling policy. If successful, a response body will be returned.
	Execute	Resource
POST	v1.0/execute/{capability_version}/ {capability_hash}	Execute a webhook
	Webhook	s Resource
GET	v1.0/{tenantId}/groups/{groupId}/policies/{policyId}/webhooks	Get a list of webhooks and their IDs. This data is returned in the body of the response in JSON format.
POST	v1.0/{tenantId}/groups/{groupId}/policies/{policyId}/webhooks	Create one or more new scaling policy webhooks. Webhooks must have a name. If successful, the created response body will contain the IDs and links to the newly created webhooks. This data provided in the request body in JSON format.
GET	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Get information about a specific scaling policy webhook. This data is returned in the body of the response in JSON format.
PUT	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Update an existing webhook. Webhooklds not recognized will be ignored with accompanying data. URLs will be ignored if submitted, but that will not invalidate the request. If successful, no response body will be returned.
DELETE	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}	Delete a scaling policy webhook. If successful, no response body will be returned.

# 2.1. Group Resource

Verb	URI	Description
GET	v1.0/{tenantId}/groups	Lists all the autoscaling groups for the specified tenant ID.
POST	v1.0/{tenantId}/groups	Create a new scaling group, given the general scaling group configuration, launch configuration, and optional scaling policies. This data provided in the request body in JSON format. If successful, the created group in JSON format containing id and links is returned.
GET	v1.0/{tenantId}/groups/{groupId}	View manifested view of the scaling group configuration, including the launch configuration, and the scaling policies. This data is returned in the body of the response in JSON format.
DELETE	v1.0/{tenantId}/groups/{groupId}	Delete a scaling group if there are no entities belonging to the scaling group. If successful, no response body will be returned. If there are pending or active entities, a 409 will be returned.
GET	v1.0/{tenantId}/groups/{groupId}/ state	Get the current state of the scaling group, including the current set of active entities, the number of pending entities, and the desired number of entities. This data is returned in the body of the response in JSON format.

## 2.1.1. List Autoscaling Groups

Verb	URI	Description
GET	v1.0/{tenantId}/groups	Lists all the autoscaling groups for the specified tenant ID.

Normal Response Code(s): 200

For the tenant specified by , this operation returns a list of autoscaling groups.

**Table 2.1. List Autoscaling Groups Request Parameters** 

Name	Style	Туре	Description
tenantId	Template		

#### **Example 2.1. List Autoscaling Groups Request: JSON**

#### **Example 2.2. List Autoscaling Groups Response: JSON**

```
"groups": [
                             "id": "{groupId1}"
                             "links": [
                             "href": "{url_root}/v1.0/010101/groups/{groupId1}"
                             "rel": "self"
                             ],
                             "active": [],
                             "activeCapacity": 0,
                             "pendingCapacity": 1,
                             "desiredCapacity": 1,
                             "paused": false
                             "id": "{groupId2}"
                             "links": [
                             "href": "{url_root}/v1.0/010101/groups/
{groupId2}",
                             "rel": "self"
                             "active": [],
                             "activeCapacity": 0,
                             "pendingCapacity": 2,
                             "desiredCapacity": 2,
                             "paused": false
                             ],
                             "groups_links": []
```

## 2.1.2. POST

Verb	URI	Description
POST	v1.0/{tenantId}/groups	Create a new scaling group, given the general scaling group configuration, launch configuration, and optional scaling policies. This data provided in the request body in JSON format. If successful, the created group in JSON format containing id and links is returned.

Normal Response Code(s): 201

#### **Table 2.2. POST Request Parameters**

Name	Style	Type	Description
tenantId	Template		

#### **Example 2.3. Request: JSON**

```
"groupConfiguration": {
   "name" : "workers"
   "cooldown": 60,
   "minEntities": 5,
   "maxEntities": 100,
   "metadata": {
       "firstkey" : "this is a string"
       "secondkey" : "1"
   },
"launchConfiguration": {
   "type" : "launch_server"
   "args": {
       "server": {
           "flavorRef": 3,
           "name" : "webhead"
           "imageRef" : "0d589460-f177-4b0f-81c1-8ab8903ac7d8"
           "OS-DCF:diskConfig" : "AUTO"
           "metadata": {
               "mykey" : "myvalue"
               },
           "personality": [
               "path": '/root/.ssh/authorized_keys',
               "contents" : "ssh-rsa AAAAB3Nza...LiPk== user@example.net"
           ],
           "networks": [
               ],
       "loadBalancers": [
           "loadBalancerId": 2200,
           "port": 8081
```

ш

1

**PREVIEW - DRAFT** 

1

- PREVIEW - DRAFT

**PREVIEW - DRAFT** 

4

```
},
"scalingPolicies": [
    "name" : "scale up by 10"
    "change": 10,
    "cooldown": 5,
    "type" : "webhook"
{
    "name" : "scale down by 5.5 percent"
    "changePercent": -5.5,
    "cooldown": 6,
    "type" : "webhook"
    "name" : "set number of servers to 10"
    "desiredCapacity": 10,
    "cooldown": 3,
    "type" : "webhook"
]
```

#### **Example 2.4. Response: JSON**

```
"group": {
   "id": "{groupId}",
    "links": [
        "href": "{url_root}/v1.0/010101/groups/{groupId}"
        "rel": "self"
     }
    ],
    "groupConfiguration": {
        "name": "workers",
        "cooldown": 60,
        "minEntities": 5,
        "maxEntities": 100,
        "metadata": {
            "firstkey": "this is a string",
            "secondkey": "1",
    "launchConfiguration": {
        "type": "launch_server",
        "args": {
            "server": {
                "flavorRef": 3,
                "name": "webhead",
                "imageRef": "0d589460-f177-4b0f-81c1-8ab8903ac7d8",
                "OS-DCF:diskConfig": "AUTO",
                "metadata": {
                    "mykey": "myvalue"
                "personality": [
                         "path": '/root/.ssh/authorized_keys',
```

ı

1

- PREVIEW - DRAFT - PREVIEW - DRAFT

```
"contents": "ssh-rsa AAAAB3Nza...LiPk==
user@example.net"
                       }
                   ],
                   "networks": [
                           ],
               "loadBalancers": [
                       "loadBalancerId": 2200,
                       "port": 8081
               ]
       },
       "scalingPolicies": [
               "id": "{policyId1}",
               "links": [
                   "href": "{url_root}/v1.0/010101/groups/{groupId}/policies/
{policyId1}"
                   "rel": "self"
               ],
               "name": "scale up by 10",
               "change": 10,
               "cooldown": 5,
               "type": "webhook"
               "id": "{policyId2}",
               "links": [
                   "href": "{url_root}/v1.0/010101/groups/{groupId}/policies/
{policyId2}"
                   "rel": "self"
                 }
               "name": "scale down by 5.5 percent",
               "changePercent": -5.5,
               "cooldown": 6,
               "type": "webhook"
               "id": "{policyId3}",
               "links": [
                   "href": "{url_root}/v1.0/010101/groups/{groupId}/policies/
{policyId3}"
                   "rel": "self"
               ],
               "name": "Set number of servers to 10",
               "desiredCapacity": 10,
               "cooldown": 6,
               "type": "webhook"
```

```
}
}
}
```

ΕV

## 2.1.3. GET

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}	View manifested view of the scaling group configuration, including the launch configuration, and the scaling policies. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.3. GET Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		

#### **Example 2.5. Request: JSON**

#### **Example 2.6. Response: JSON**

```
"group": {
       "id": "{groupId}",
       "links": [
           "href": "{url_root}/v1.0/010101/groups/{groupId}"
           "rel": "self"
       ],
       "groupConfiguration": {
           "name": "workers",
           "cooldown": 60,
           "minEntities": 5,
           "maxEntities": 100,
           "metadata": {
               "firstkey": "this is a string",
               "secondkey": "1",
       "launchConfiguration": {
           "type": "launch_server",
           "args": {
               "server": {
                    "flavorRef": 3,
                    "name": "webhead",
                    "imageRef": "0d589460-f177-4b0f-81c1-8ab8903ac7d8",
                    "OS-DCF:diskConfig": "AUTO",
                    "metadata": {
                        "mykey": "myvalue"
                   },
                    "personality": [
                            "path": '/root/.ssh/authorized_keys',
                            "contents": "ssh-rsa AAAAB3Nza...LiPk==
user@example.net"
                   ],
                    "networks": [
```

- PREVIEW - DRAFT - PREVIEW - DRAFT - PREVIEW - DRAFT

```
"uuid": "11111111-1111-1111-1111-11111111111"
                    ],
                "loadBalancers": [
                         "loadBalancerId": 2200,
                         "port": 8081
                ]
            }
        },
        "scalingPolicies": [
                "id": "{policyId1}",
                "links": [
                     "href": "{url_root}/v1.0/010101/groups/{groupId}/policies/
{policyId1}"
                    "rel": "self"
                ],
                "name": "scale up by 10",
                "change": 10,
                "cooldown": 5,
                "type": "webhook"
                "id": "{policyId2}",
                "links": [
                  {
                    "href": "{url_root}/v1.0/010101/groups/{groupId}/policies/
{policyId2}"
                    "rel": "self"
                  }
                "name": "scale down by 5.5 percent",
                "changePercent": -5.5,
                "cooldown": 6,
                "type": "webhook"
                "id": "{policyId3}",
                "links": [
                    "href": "{url_root}/v1.0/010101/groups/{groupId}/policies/
{policyId3}"
                    "rel": "self"
                "name": "set number of servers to 10",
                "desiredCapacity": 10,
                "cooldown": 3,
                "type": "webhook"
            }
       ]
   }
```

## **2.1.4. DELETE**

Verb	URI	Description
DELETE	v1.0/{tenantId}/groups/{groupId}	Delete a scaling group if there are no entities belonging to the scaling group. If successful, no response body will be returned. If there are pending or active entities, a 409 will be returned.

Normal Response Code(s): 204

## **Table 2.4. DELETE Request Parameters**

Name	Style	Type	Description
tenantId	Template		
groupId	Template		

## **Example 2.7. Request: JSON**

## 2.1.5. **GET**

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}/ state	Get the current state of the scaling group, including the current set of active entities, the number of pending entities, and the desired number of entities. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.5. GET Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		

#### **Example 2.8. Request: JSON**

### **Example 2.9. Response: JSON**

```
"group": {
        "id": "{groupId}",
        "links": [
                "href": "{url_root}/v1.0/010101/groups/{groupId},
                "rel": "self"
        ],
        "active": [
                "id": "{instanceId1}"
                "links": [
                         "href": "https://dfw.servers.api.rackspacecloud.com/
v2/010101/servers/{instanceId1}",
                         "rel": "self"
                ]
            },
                "id": "{instanceId2}"
                "links": [
                         "href": "https://dfw.servers.api.rackspacecloud.com/
v2/010101/servers/{instanceId2}",
                         "rel": "self"
                ]
        ],
        "activeCapacity": 2,
        "pendingCapacity": 2,
        "desiredCapacity": 4,
        "paused": false
```

# 2.2. Configuration Resource

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}/ config	Get the configuration for a scaling group, which includes the minimum number of entities, the maximum number of entities, global cooldown, and other metadata. This data is returned in the body of the response in JSON format.
PUT	v1.0/{tenantId}/groups/{groupId}/ config	Edit the configuration for a scaling group, which includes the minimum number of entities, the maximum number of entities, global cooldown, and other metadata. This data provided in the request body in JSON format. If successful, no response body will be returned.
GET	v1.0/{tenantId}/groups/{groupId}/ launch	Get the launch configuration for a scaling group, which includes the details of how to create a server, from what image, which load balancers to join it to, and what networks to add it to, and other metadata. This data is returned in the body of the response in JSON format.
PUT	v1.0/{tenantId}/groups/{groupId}/launch	Edit the launch configuration for a scaling group, which includes the details of how to create a server, from what image, which load balancers to join it to, and what networks to add it to, and other metadata. This data provided in the request body in JSON format. If successful, no response body will be returned.
POST	v1.0/{tenantId}/groups/{groupId}/ pause	Pause all execution of scaling policies for this scaling group.
POST	v1.0/{tenantId}/groups/{groupId}/ resume	Resume all execution of scaling policies for this scaling group.

## 2.2.1. **GET**

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}/ config	Get the configuration for a scaling group, which includes the minimum number of entities, the maximum number of entities, global cooldown, and other metadata. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.6. GET Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		

#### **Example 2.10. Request: JSON**

### **Example 2.11. Response: JSON**

```
{
    "groupConfiguration": {
        "name": "workers",
        "cooldown": 60,
        "minEntities": 5,
        "maxEntities": 100,
        "metadata": {
            "firstkey": "this is a string",
            "secondkey": "1",
        }
    }
}
```

## 2.2.2. PUT

Verb	URI	Description
PUT	v1.0/{tenantId}/groups/{groupId}/ config	Edit the configuration for a scaling group, which includes the minimum number of entities, the maximum number of entities, global cooldown, and other metadata. This data provided in the request body in JSON format. If successful, no response body will be returned.

Normal Response Code(s): 204

## **Table 2.7. PUT Request Parameters**

Name	Style	Type	Description
tenantId	Template		
groupId	Template		

## **Example 2.12. Request: JSON**

## 2.2.3. **GET**

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}/ launch	Get the launch configuration for a scaling group, which includes the details of how to create a server, from what image, which load balancers to join it to, and what networks to add it to, and other metadata. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.8. GET Request Parameters**

Name	Style	Type	Description
tenantId	Template		
groupId	Template		

#### **Example 2.13. Request: JSON**

#### **Example 2.14. Response: JSON**

```
"launchConfiguration": {
        "type": "launch_server",
        "args": {
            "server": {
                "flavorRef": 3,
                "name": "webhead",
                "imageRef": "0d589460-f177-4b0f-81c1-8ab8903ac7d8",
                "OS-DCF:diskConfig": "AUTO",
                "metadata": {
                    "mykey": "myvalue"
                },
                "personality": [
                         "path": '/root/.ssh/authorized_keys',
                         "contents": "ssh-rsa AAAAB3Nza...LiPk== user@example.
net"
                ],
                "networks": [
                         "uuid": "11111111-1111-1111-1111-11111111111"
                ],
            "loadBalancers": [
                    "loadBalancerId": 2200,
                    "port": 8081
            ]
        }
```

## 2.2.4. PUT

Verb	URI	Description
PUT	v1.0/{tenantId}/groups/{groupId}/launch	Edit the launch configuration for a scaling group, which includes the details of how to create a server, from what image, which load balancers to join it to, and what networks to add it to, and other metadata. This data provided in the request body in JSON format. If successful, no response body will be returned.

Normal Response Code(s): 204

#### **Table 2.9. PUT Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		

#### **Example 2.15. Request: JSON**

```
"type" : "launch_server"
"args": {
   "server": {
       "flavorRef": 3,
       "name" : "webhead"
       "imageRef" : "0d589460-f177-4b0f-81c1-8ab8903ac7d8"
       "OS-DCF:diskConfig" : "AUTO"
       "metadata": {
           "mykey" : "myvalue"
           },
       "personality": [
           "path": '/root/.ssh/authorized_keys',
           "contents" : "ssh-rsa AAAAB3Nza...LiPk== user@example.net"
       ],
       "networks": [
           ],
       },
   "loadBalancers": [
       "loadBalancerId": 2200,
       "port": 8081
   ]
   }
```

## 2.2.5. **POST**

Verb	URI	Description
POST	v1.0/{tenantId}/groups/{groupId}/	Pause all execution of scaling policies for this scaling
	pause	group.

Normal Response Code(s): 204

## **Table 2.10. POST Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		

## **Example 2.16. Request: JSON**

## 2.2.6. POST

Verb	URI	Description
POST	v1.0/{tenantId}/groups/{groupId}/resume	Resume all execution of scaling policies for this scaling group.

Normal Response Code(s): 204

#### **Table 2.11. POST Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		

## **Example 2.17. Request: JSON**

This operation does not return a response body.

## 2.3. Policies Resource

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}/ policies	Get a list of scaling policies in the group. Each policy describes an id, name, type, adjustment, cooldown, and links. This data is returned in the body of the response in JSON format.
POST	v1.0/{tenantId}/groups/{groupId}/ policies	Create one or many new scaling policies. Scaling policies must include a name, type, adjustment, and cooldown.  The response header will point to the list policies endpoint. An array of scaling policies is provided in the request body in JSON format.
GET	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}	Get a scaling policy which describes an id, name, type, adjustment, and cooldown, and links. This data is returned in the body of the response in JSON format.
PUT	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}	Updates a scaling policy. Scaling policies must include a name, type, adjustment, and cooldown. If successful, no response body will be returned.
DELETE	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}	Delete a scaling policy. If successful, no response body will be returned.
POST	v1.0/{tenantId}/groups/{groupId}/policies/{policyId}/execute	Execute a scaling policy. If successful, a response body will be returned.

## 2.3.1. GET

Verb	URI	Description
GET	<pre>v1.0/{tenantId}/groups/{groupId}/ policies</pre>	Get a list of scaling policies in the group. Each policy describes an id, name, type, adjustment, cooldown, and links. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.12. GET Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		

#### **Example 2.18. Request: JSON**

#### **Example 2.19. Response: JSON**

```
"policies": [
            "id":"{policyId1}",
            "data": {
                "name": "scale up by one server",
                "change": 1,
                "cooldown": 150,
                "type": "webhook"
            "links": [
                     "href": "{url_root}/v1.0/010101/groups/{groupId1}/policy/
{policyId1}"
                     "rel": "self"
            ]
            "id": "{policyId2}",
            "data": {
                "name": "scale up ten percent",
                "changePercent": 10,
                "cooldown": 150,
                "type": "webhook"
            "links": [
                     "href": "{url_root}/v1.0/010101/groups/{groupId1}/policy/
{policyId2}"
                    "rel": "self"
            ]
        },
            "id":"{policyId3}",
```

```
"data": {
                "name": "scale down one server",
                "change": -1,
                "cooldown": 150,
                "type": "webhook"
            "links": [
                     "href": "{url_root}/v1.0/010101/groups/{groupId1}/policy/
{policyId3}"
                     "rel": "self"
            ]
        },
            "id": "{policyId4}",
            "data": {
                "name": "scale down ten percent",
                "changePercent": -10,
                "cooldown": 150,
                "type": "webhook"
            },
            "links": [
                {
                     "href": "{url_root}/v1.0/010101/groups/{groupId1}/policy/
{policyId4}"
                     "rel": "self"
            ]
        }
   ]
```

## 2.3.2. POST

Verb	URI	Description
POST	v1.0/{tenantId}/groups/{groupId}/ policies	Create one or many new scaling policies. Scaling policies must include a name, type, adjustment, and cooldown. The response header will point to the list policies endpoint. An array of scaling policies is provided in the request body in JSON format.

Normal Response Code(s): 201

#### **Table 2.13. POST Request Parameters**

Name	Style	Type	Description
tenantId	Template		
groupId	Template		

#### **Example 2.20. Request: JSON**

```
[
    "name" : "scale up by one server"
    "change": 1,
    "cooldown": 150,
    "type" : "webhook"
    },
{
    "name" : "scale down by 5.5 percent"
    "changePercent": -5.5,
    "cooldown": 6,
    "type" : "webhook"
    }
]
```

#### **Example 2.21. Response: JSON**

```
"policies": [
            "id": {policyId1},
            "links": [
                     "href": "{url_root}/v1.0/010101/groups/{groupId}/policy/
{policyId1}"
                     "rel": "self"
            ],
            "name": "scale up by one server",
            "change": 1,
            "cooldown": 150,
            "type": "webhook"
        },
            "id": {policyId2},
            "links": [
                     "href": "{url_root}/v1.0/010101/groups/{groupId}/policy/
{policyId2}"
```

## 2.3.3. GET

Verb	URI	Description
GET	policies/{policyId}	Get a scaling policy which describes an id, name, type, adjustment, and cooldown, and links. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.14. GET Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		

#### **Example 2.22. Request: JSON**

#### **Example 2.23. Response: JSON**

## 2.3.4. PUT

Verb	URI	Description
PUT	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}	Updates a scaling policy. Scaling policies must include a name, type, adjustment, and cooldown. If successful, no response body will be returned.

Normal Response Code(s): 204

### **Table 2.15. PUT Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		

## **Example 2.24. Request: JSON**

```
{
    "name": 'scale down by 5.5 percent',
    "changePercent": -5.5,
    "cooldown": 6,
    "type" : "webhook"
}
```

## **2.3.5. DELETE**

Verb	URI	Description
DELETE	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}	Delete a scaling policy. If successful, no response body will be returned.

Normal Response Code(s): 204

## **Table 2.16. DELETE Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		

## **Example 2.25. Request: JSON**

## 2.3.6. POST

Verb	URI	Description
	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/execute	Execute a scaling policy. If successful, a response body will be returned.

Normal Response Code(s): 202

## **Table 2.17. POST Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		

**Example 2.26. Request: JSON** 

**Example 2.27. Response: JSON** 

{}

## 2.4. Execute Resource

Verb	URI	Description
POST	v1.0/execute/{capability_version}/ {capability_hash}	Execute a webhook

## 2.4.1. POST

Verb	URI	Description
POST	v1.0/execute/{capability_version}/ {capability_hash}	Execute a webhook

Normal Response Code(s): 202

#### **Table 2.18. POST Request Parameters**

Name	Style	Туре	Description
capability_version	Template		
capability_hash	Template		

**Example 2.28. Request: JSON** 

**Example 2.29. Response: JSON** 

{}

## 2.5. Webhooks Resource

Verb	URI	Description
GET	v1.0/{tenantId}/groups/{groupId}/policies/{policyId}/webhooks	Get a list of webhooks and their IDs. This data is returned in the body of the response in JSON format.
POST	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks</pre>	Create one or more new scaling policy webhooks. Webhooks must have a name. If successful, the created response body will contain the IDs and links to the newly created webhooks. This data provided in the request body in JSON format.
GET	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Get information about a specific scaling policy webhook. This data is returned in the body of the response in JSON format.
PUT	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Update an existing webhook. Webhooklds not recognized will be ignored with accompanying data. URLs will be ignored if submitted, but that will not invalidate the request. If successful, no response body will be returned.
DELETE	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Delete a scaling policy webhook. If successful, no response body will be returned.

## 2.5.1. GET

Verb	URI	Description
	, , , , , , , , , , , , , , , , , , , ,	Get a list of webhooks and their IDs. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.19. GET Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		

#### Example 2.30. Request: JSON

#### **Example 2.31. Response: JSON**

```
"webhooks": [
            "id":"{webhookId1}",
            "name": "alice",
            "metadata": {
                "notes": "this is for Alice"
            "links": [
                    "href": ".../{groupId1}/policies/{policyId1}/webhooks/
{webhookId1}/",
                    "rel": "self"
                    "href": ".../execute/1/{capability_hash1}/,
                    "rel": "capability"
            ]
        },
            "id":"{webhookId2}",
            "name": "alice",
            "metadata": {
                "notes": "this is for Bob"
            "links": [
                    "href": ".../{groupId1}/policies/{policyId1}/webhooks/
{webhookId2}/",
                    "rel": "self"
                    "href": ".../execute/1/{capability_hash2}/,
                    "rel": "capability"
```

```
}
],
"webhooks_links": []
}
```

## 2.5.2. POST

Verb	URI	Description
POST	v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks	Create one or more new scaling policy webhooks. Webhooks must have a name. If successful, the created response body will contain the IDs and links to the newly created webhooks. This data provided in the request body in JSON format.

Normal Response Code(s): 201

#### **Table 2.20. POST Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		

#### **Example 2.32. Request: JSON**

```
[
{
    "name" : "alice"
    "metadata": {
        "notes" : "this is for Alice"
        }
    },
{
    "name" : "bob"
    }
]
```

#### **Example 2.33. Response: JSON**

## 2.5.3. GET

Verb	URI	Description
GET	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Get information about a specific scaling policy webhook. This data is returned in the body of the response in JSON format.

Normal Response Code(s): 200

#### **Table 2.21. GET Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		
webhookId	Template		

#### Example 2.34. Request: JSON

#### **Example 2.35. Response: JSON**

## 2.5.4. PUT

Verb	URI	Description
PUT	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Update an existing webhook. WebhookIds not recognized will be ignored with accompanying data. URLs will be ignored if submitted, but that will not invalidate the request. If successful, no response body will be returned.

Normal Response Code(s): 204

## **Table 2.22. PUT Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		
webhookId	Template		

## **Example 2.36. Request: JSON**

```
{
    "name" : "alice"
    "metadata": {
        "notes" : "this is for Alice"
     }
}
```

## **2.5.5. DELETE**

Verb	URI	Description
DELETE	<pre>v1.0/{tenantId}/groups/{groupId}/ policies/{policyId}/webhooks/ {webhookId}</pre>	Delete a scaling policy webhook. If successful, no response body will be returned.

Normal Response Code(s): 204

### **Table 2.23. DELETE Request Parameters**

Name	Style	Туре	Description
tenantId	Template		
groupId	Template		
policyId	Template		
webhookId	Template		

## **Example 2.37. Request: JSON**