

Creating new networks in Cleura Cloud

Before creating a server in Cleura Cloud, you need at least one network to make the new server a member of. Since you may have more than one network per region, let us now walk through creating a new network using the Cleura Cloud Control Panel, or using the OpenStack CLI.

Prerequisites

Whether you choose to work from the Cleura Cloud Control Panel or with the OpenStack CLI, you need to **have an account** in Cleura Cloud. Additionally, to use the OpenStack CLI make sure to **enable it first**.

Creating a network

To create a network from the Cleura Cloud Control Panel, fire up your favorite web browser, navigate to the **Cleura Cloud** page, and login into your Cleura account. On the other hand, if you prefer to work with OpenStack CLI, please do not forget to source the RC file first.

Cleura Cloud Control Panel OpenStack CLI

On the top right-hand side of the Cleura Cloud Control Panel, click the *Create* button. A new pane



Cores (0 used)



Show Quota

Create a Server



Operating systems

No servers defined

Alerts (last 24H)

You will notice several rounded boxes prominently displayed on that pane, each for defining, configuring, or monitoring a resource. For now, select one of the available regions for the new network.



Start by creating a new network, named `nordostbahnhof` :

```
openstack network create nordostbahnhof
```

By issuing the command above, you immediately get information regarding the new network:

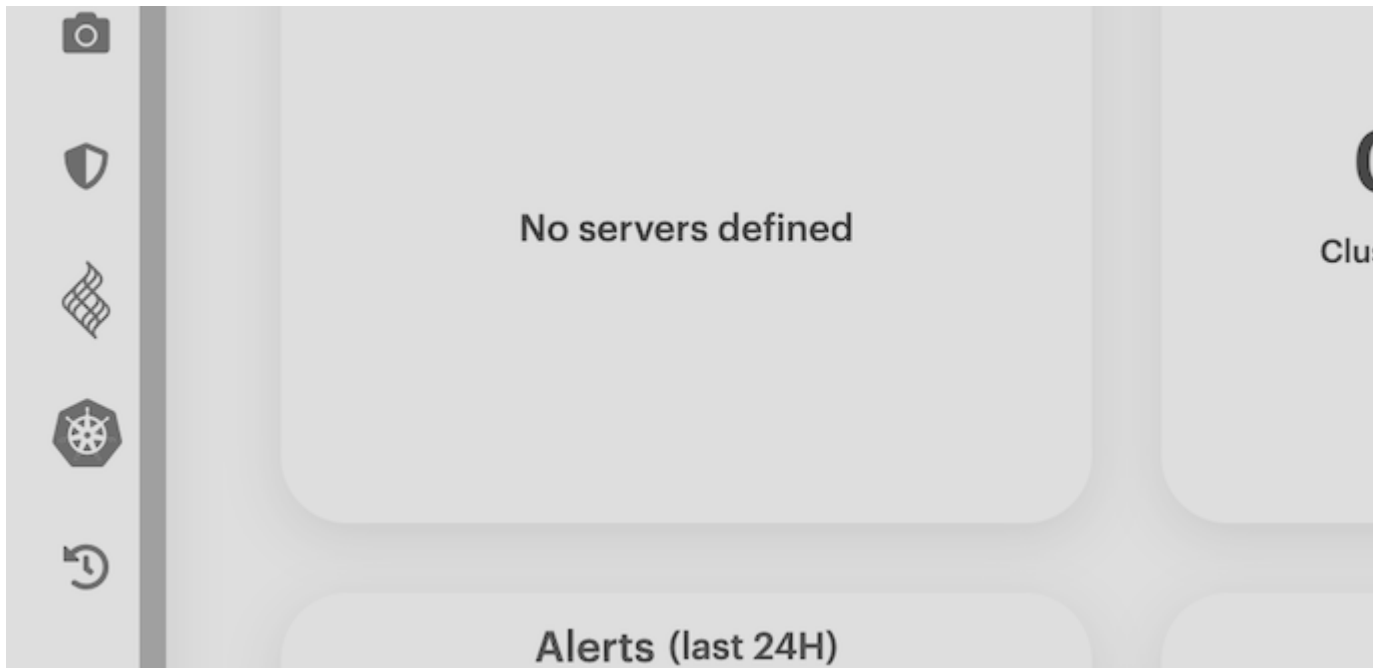
```
+-----+-----+
| Field          | Value                                |
+-----+-----+
| admin_state_up | UP                                  |
| availability_zone_hints |                                     |
| availability_zones |                                     |
| created_at      | 2022-10-30T14:31:49Z               |
| description     |                                     |
| dns_domain      | None                                |
| id              | 201d458b-9b47-4408-9736-980bec77d405 |
| ipv4_address_scope | None                                |
| ipv6_address_scope | None                                |
| is_default      | False                               |
| is_vlan_transparent | None                                |
| mtu             | 1500                                |
| name            | nordostbahnhof                      |
| port_security_enabled | True                               |
| project_id      | dfc700467396428bacba4376e72cc3e9   |
| provider:network_type | None                                |
```

```
| provider:physical_network | None |
| provider:segmentation_id | None |
| qos_policy_id            | None |
| revision_number          | 1 |
| router:external          | Internal |
| segments                 | None |
| shared                   | False |
| status                   | ACTIVE |
| subnets                 | |
| tags                     | |
| updated_at               | 2022-10-30T14:31:50Z |
+-----+-----+
```

Adding a subnet and a router

Creating a new network does not necessarily mean it has all the features you most likely would expect. Unless you work from the Cleura Cloud Control Panel, where almost every component is activated for you with a few clicks here and there, when you use the OpenStack CLI there is some extra work you need to do before you get a network you would characterize as useful.

Expand the *Advanced Options* section below, make sure *Port Security* is enabled, and leave the MTU



You probably want a full-featured network for your cloud servers, so please activate the *Create a c*
DNS servers, a Gateway, and a DHCP server.



☐ Show Quota

☐ Show



Create a Server



Operating systems



No servers defined



Alerts (last 24H)

0

Alerts

0%

Uptime

Scroll down a little bit if you have to. Assuming you want your cloud servers to reach hosts on the Internet, the Internet will be readily available.



You now have to create a subnet for the new network. Let us call this subnet `nordostbahnhof-subnet`:

```
openstack subnet create nordostbahnhof-subnet \
  --network nordostbahnhof --subnet-range 10.20.30.0/24
```

Again, you get detailed information regarding the new subnet:

Field	Value
allocation_pools	10.20.30.2-10.20.30.254
cidr	10.20.30.0/24
created_at	2022-10-30T14:47:40Z
description	
dns_nameservers	

```

| dns_publish_fixed_ip | None
| enable_dhcp          | True
| gateway_ip           | 10.20.30.1
| host_routes          |
| id                   | 1b0822b3-62e8-4b40-92e8-8544c72d4c15
| ip_version           | 4
| ipv6_address_mode    | None
| ipv6_ra_mode         | None
| name                 | nordostbahnhof-subnet
| network_id           | 201d458b-9b47-4408-9736-980bec77d405
| project_id           | dfc700467396428bacba4376e72cc3e9
| revision_number      | 0
| segment_id           | None
| service_types        |
| subnetpool_id        | None
| tags                 |
| updated_at           | 2022-10-30T14:47:40Z
+-----+-----+

```

If you want servers connected to the `nordostbahnhof` network to have Internet access, you need a router.

```
openstack router create nordostbahnhof-router
```

As expected, you will see lots of information regarding the new router:

```

+-----+-----+
| Field          | Value
+-----+-----+
| admin_state_up | UP
| availability_zone_hints |
| availability_zones |
| created_at     | 2022-10-30T15:36:26Z
| description    |
| enable_ndp_proxy | None
| external_gateway_info | null
| flavor_id      | None
| ha             | True
| id             | 566de991-fc0e-4f85-b6c4-5c87694781f7
| name           | nordostbahnhof-router
| project_id     | dfc700467396428bacba4376e72cc3e9
| revision_number | 1
| routes         |
| status         | ACTIVE
| tags           |
| tenant_id      | dfc700467396428bacba4376e72cc3e9
| updated_at     | 2022-10-30T15:36:26Z
+-----+-----+

```

You want the `nordostbahnhof-router` connected to the external network. The name of this network is

```
openstack router set nordostbahnhof-router --external-gateway ext-net
```

Please note that if the command above is successful, you will get no output on your terminal. There

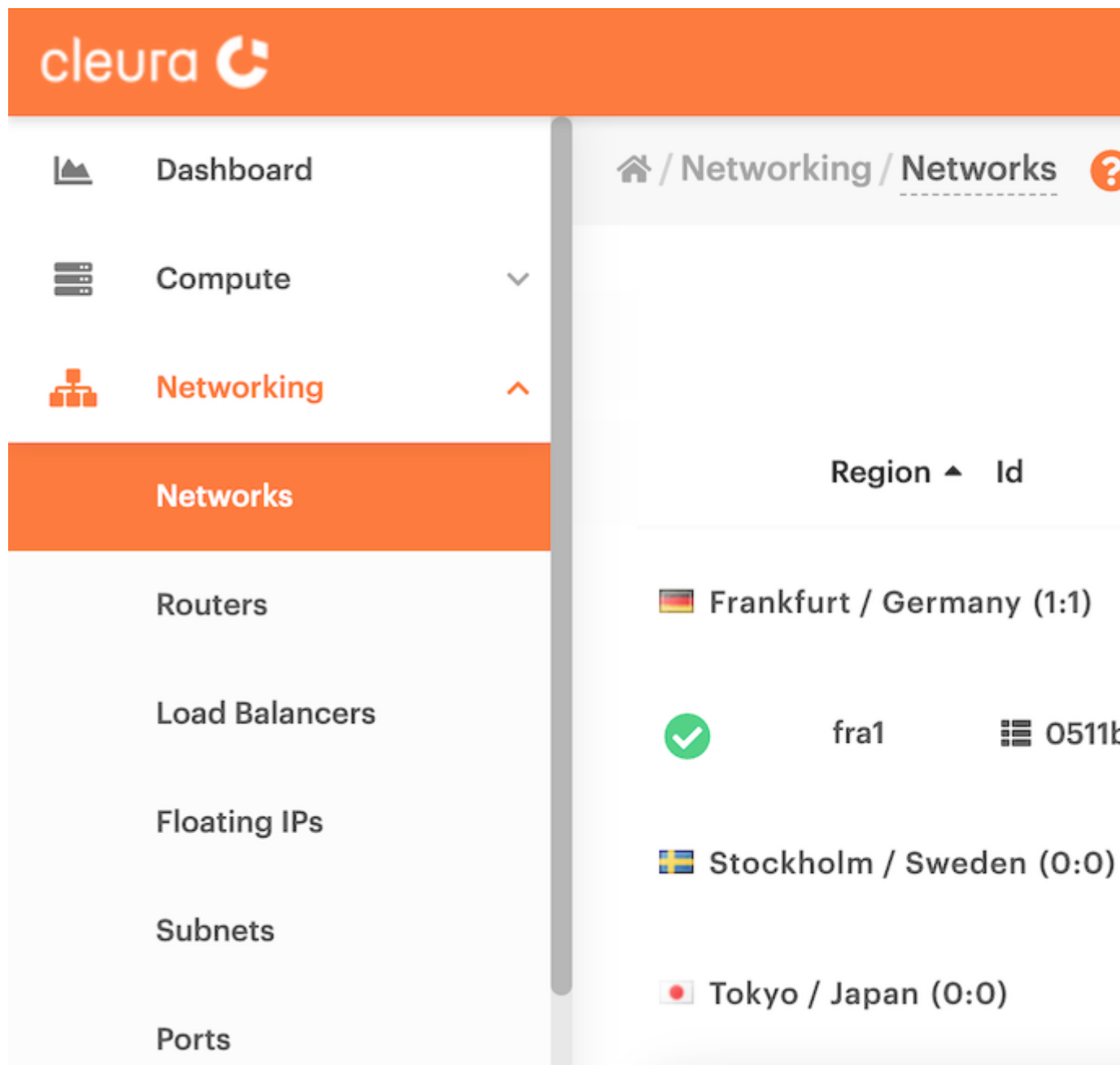
```
openstack router add subnet nordostbahnhof-router nordostbahnhof-subnet
```

Again, if the command above is successful, you will get no output.

Listing networks and getting information

At any time, you may connect to the Cleura Cloud Control Panel, list all networks you have already created, and get detailed information for any of these networks. Alternatively, you may get all that information using the OpenStack CLI.

You may see all defined networks, in all supported regions, by selecting *Networking* > *Networks* (s



The screenshot displays the Cleura Cloud Control Panel interface. On the left, a sidebar menu lists various cloud services: Dashboard, Compute, Networking (highlighted in orange), Networks (highlighted in orange), Routers, Load Balancers, Floating IPs, Subnets, and Ports. The main content area shows the 'Networking / Networks' page. A breadcrumb trail indicates the path: Home / Networking / Networks. Below this, a table lists available network regions. The table has columns for Region, Id, and a three-dot menu icon. The first row shows 'Frankfurt / Germany (1:1)' with a green checkmark icon and Id 'fra1 0511b'. The second row shows 'Stockholm / Sweden (0:0)'. The third row shows 'Tokyo / Japan (0:0)'.

Region	Id	
Frankfurt / Germany (1:1)	fra1	0511b
Stockholm / Sweden (0:0)		
Tokyo / Japan (0:0)		

For more information regarding a specific network, click the corresponding three-dot icon (right-h



Dashboard



Compute



Networking



Networks

Routers

Load Balancers

Floating IPs

Subnets

Ports



VPN Services



Storage



Images



Security Groups



/ Networking / Networks



Region ▲ Id



Frankfurt / Germany (1:1)



fra1



0511b

Details

Port

Name :

nor

Router External :

Not

Router Name :

r

Router Id :

f

Subnets :

r

Tenant Id :

c

To list all available networks in a specific region, just type:

```
openstack network list
```

You can always ask for more specific results. For instance, to see all internal networks only, type the

```
openstack network list --internal
```

You can also get detailed information about a specific network:

```
openstack network show nordostbahnhof
```

At any time, type `openstack network list --help` or `openstack network show --help` to see how to get information

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Authors: Christos Varelas