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

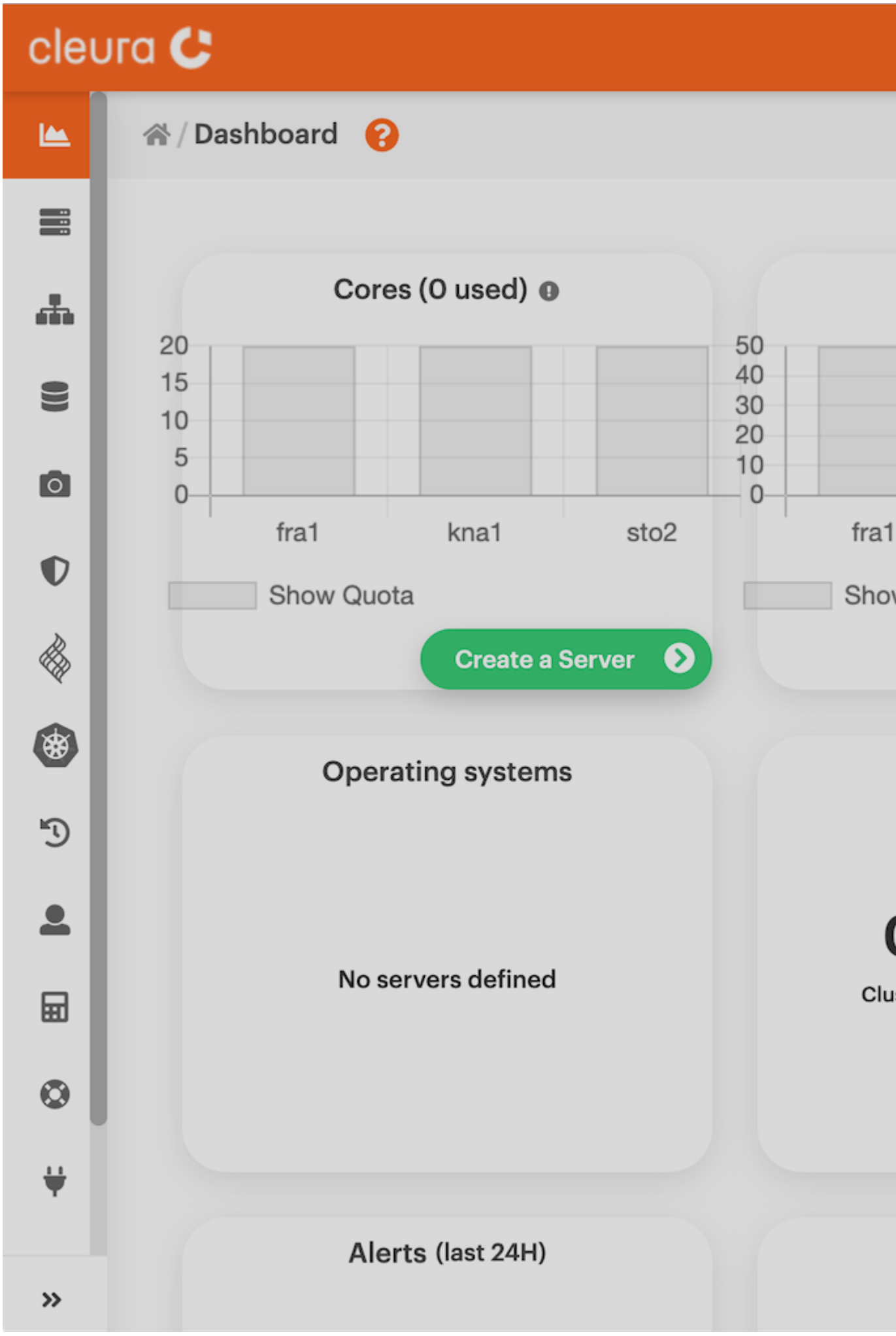
Whether you choose to work from the Cleura Cloud Control Panel or with the OpenStack CLI, you need to have an account in Cleura Cloud. Additionally, to use the OpenStack CLI make sure to enable it first.

Creating a network

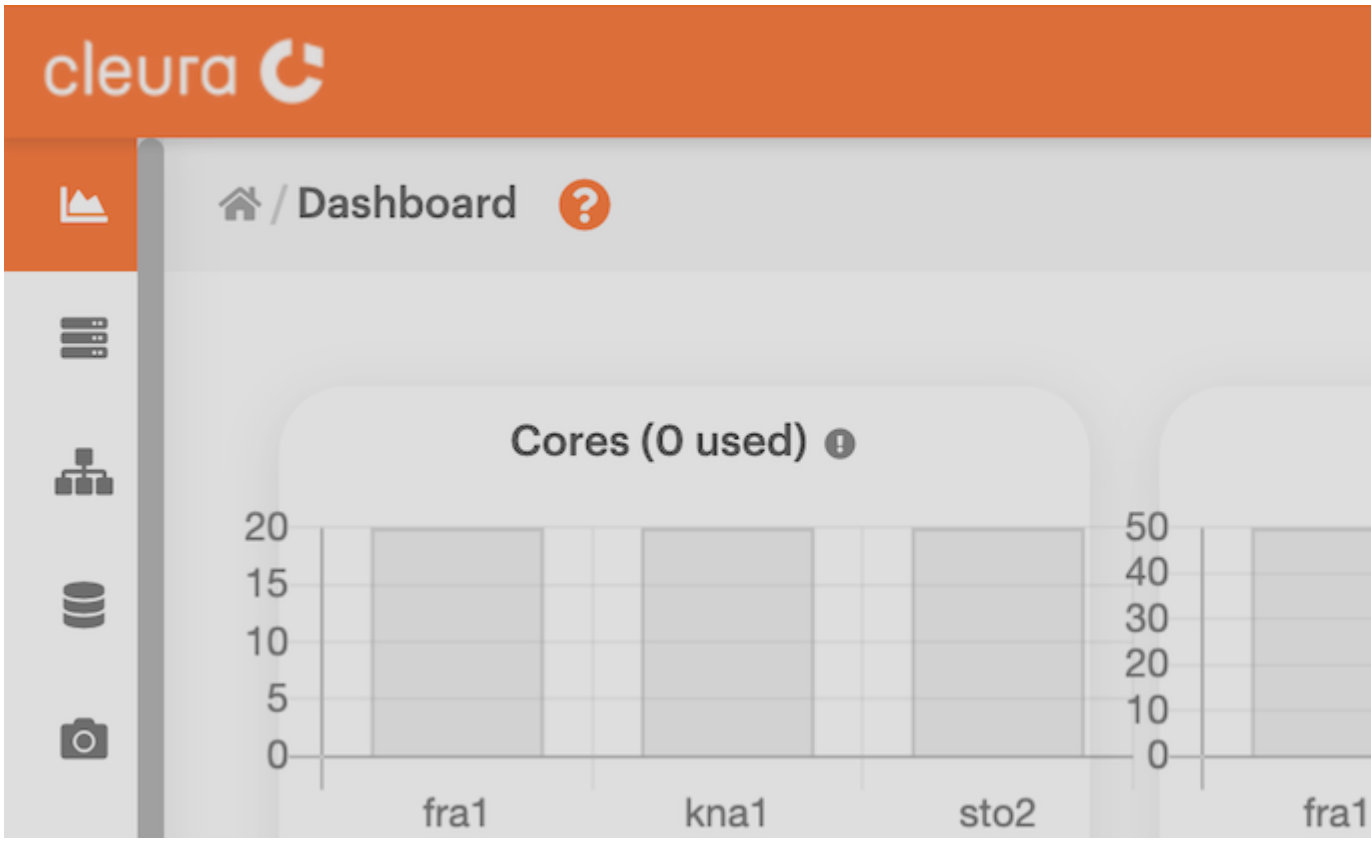
To create a network from the Cleura Cloud Control Panel, fire up your favorite web browser, navigate to the Cleura Cloud page, and login into your Cleura account. On the other hand, if you prefer to work with OpenStack CLI, please do not forget to source the RC file first.

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


cleura
Dashboard
Cores (0 used)
20
15
10
5
0
fra1
kna1
sto2
50
40
30
20
10
0
fra1
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, config
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:

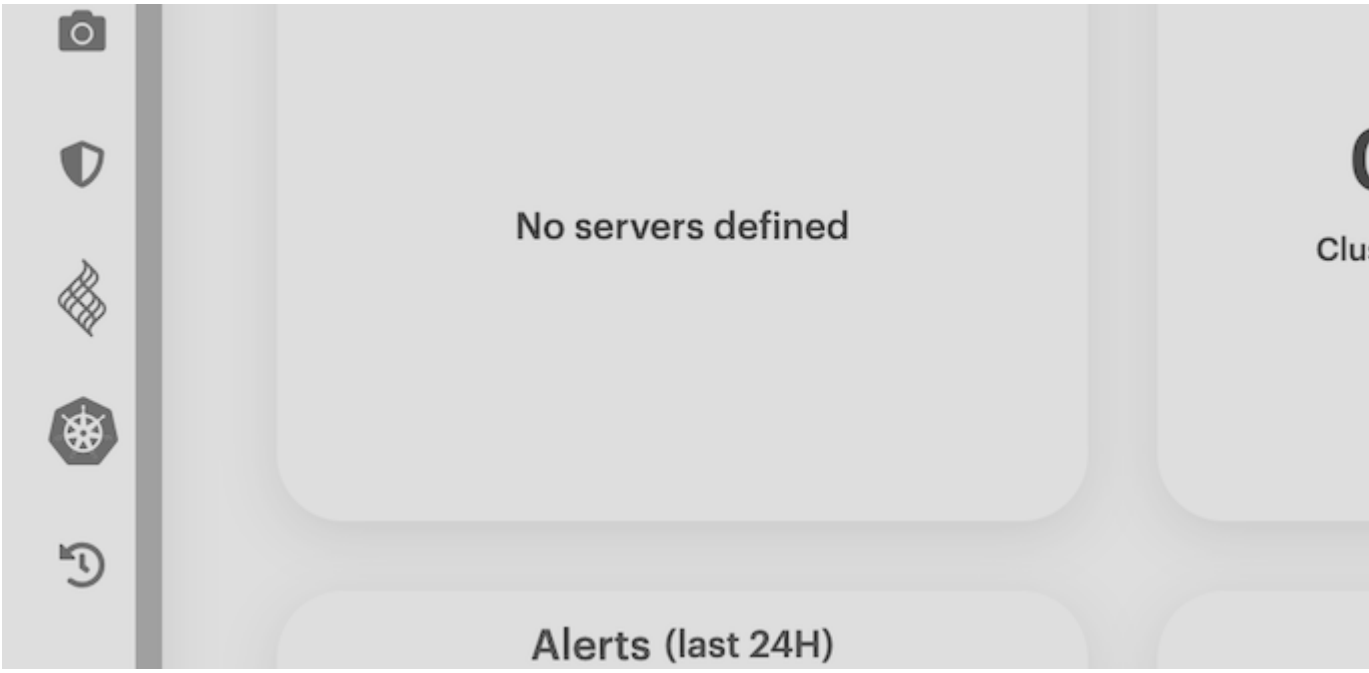
```
+---------------------------+--------------------------------------+
| Field                     | Value                                |
+---------------------------+--------------------------------------+
| admin_state_up            | UP                                   |
| availability_zone_hints   |                                      |
| 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                 |
+---------------------------+--------------------------------------+
```

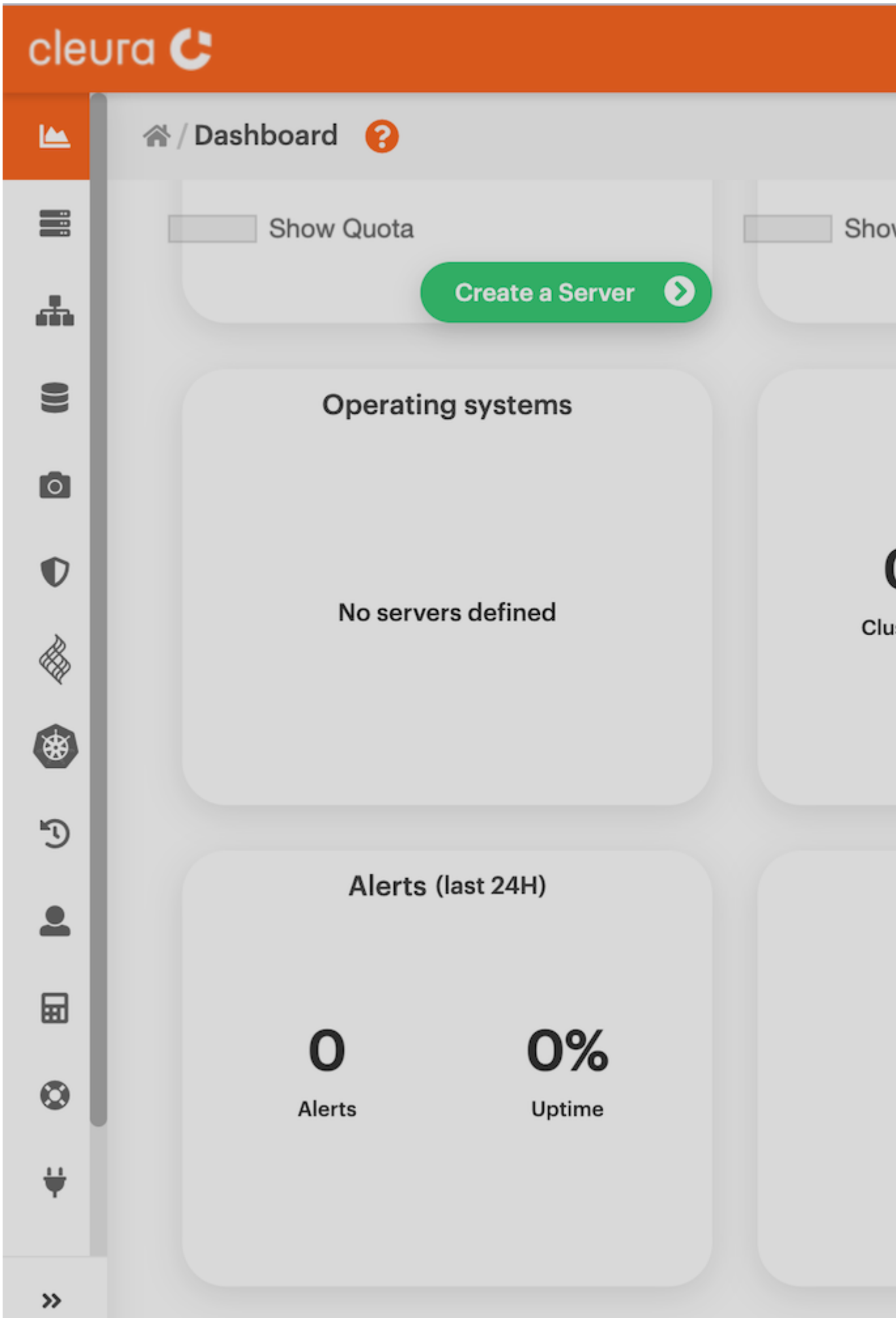
Adding a subnet and a router

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.

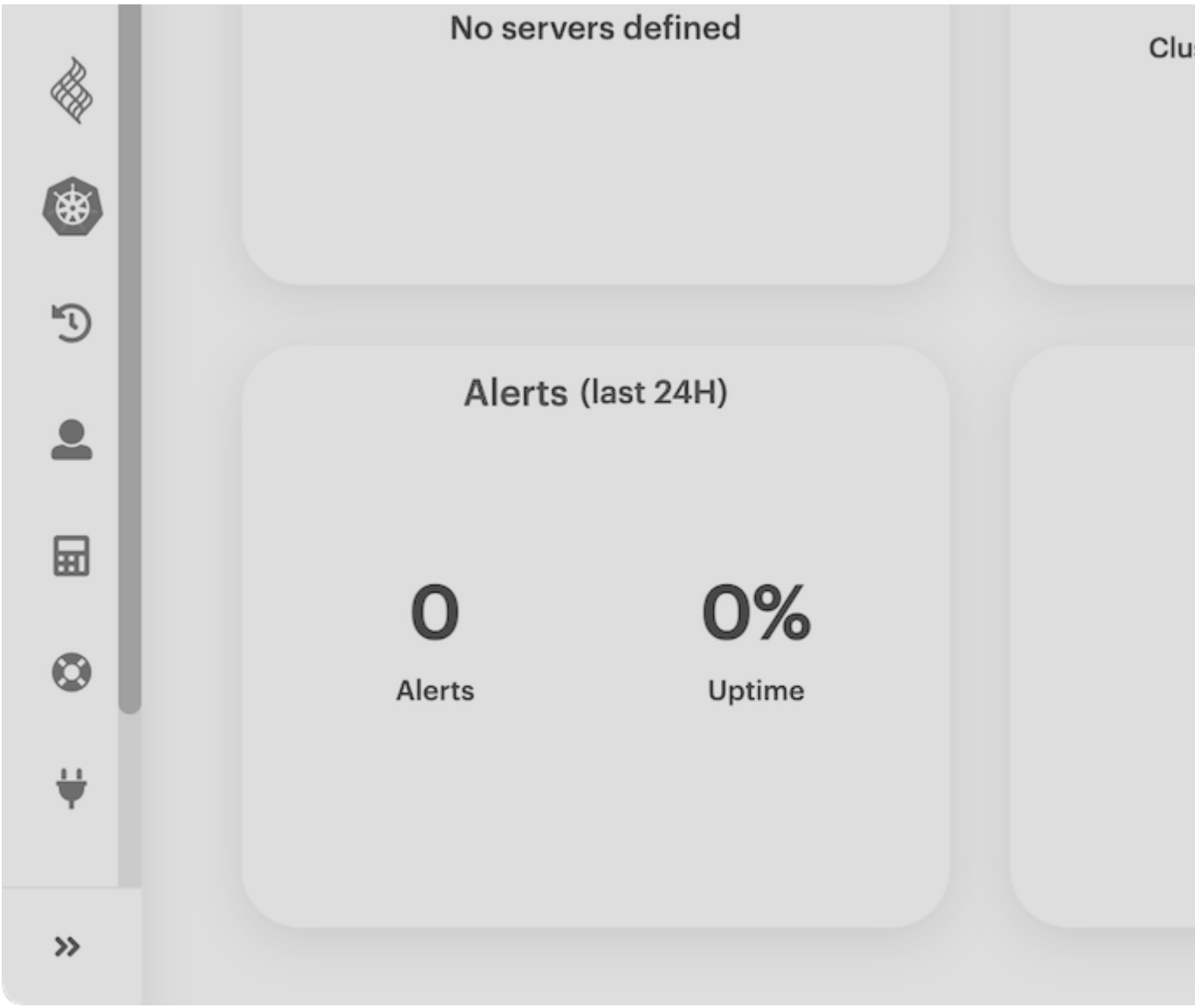
Expand the *Advanced Options* section below, make sure *Port Security* is enabled, and leave the MT



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.


cleura
Dashboard
Show Quota
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 I
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 ro

```
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
```

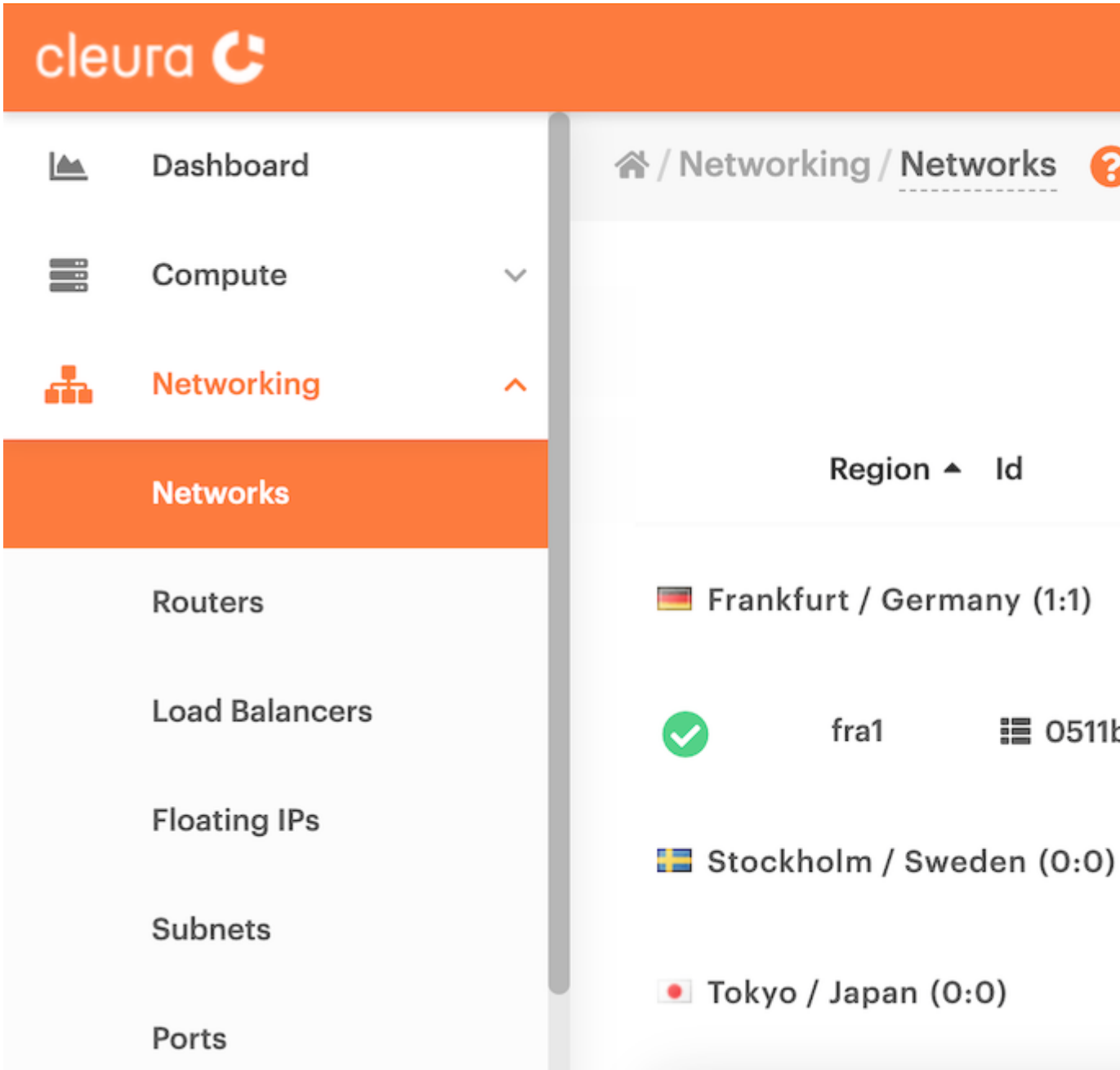
Again, if the command above is successful, you will get no output.

Listing networks and getting information

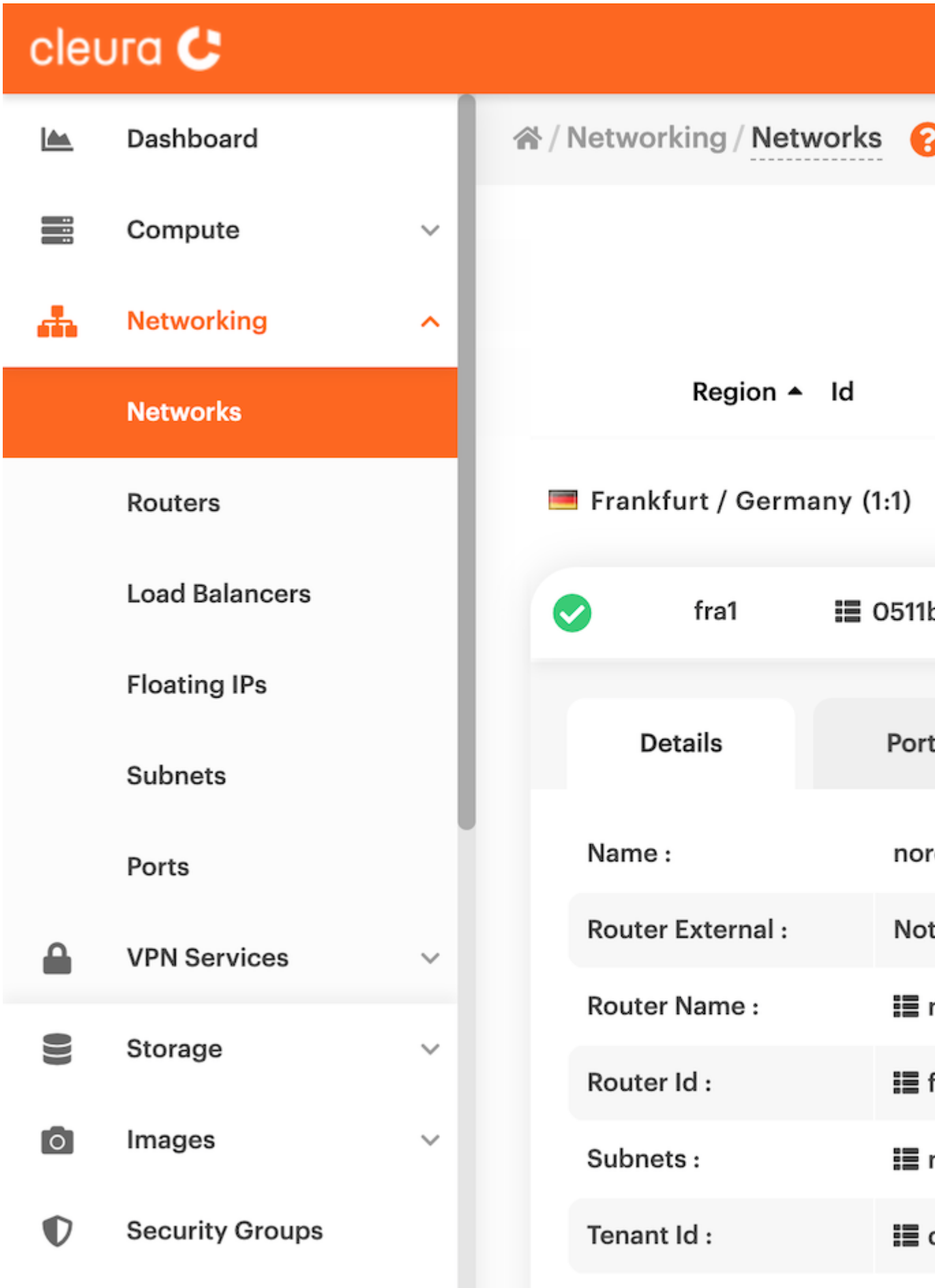
At any time, you may connect to the Cleura Cloud Control Panel, list all networks you have already created, and get detailed information for any of these networks. Alternatively, you may get all that information using the OpenStack CLI.

Cleura Cloud Control Panel **OpenStack CLI**

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



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


cleura
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
Details
Name :
Router External :
Router Name :
Router Id :
Subnets :
Tenant Id :

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 th

```
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 inform

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