



# Deleting networks

Deleting a network in Cleura Cloud may sound like a pretty straightforward task — and it is. It's just that before deleting a network, there are some steps we almost always need to take. In what follows we show, step by step and through specific examples, how we delete networks using either the Cleura Cloud Management Panel or the OpenStack CLI.

## Prerequisites

Whether you choose to work from the Cleura Cloud Management 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** for the region you will be working in.

## Selecting a network

Unless you already have the ID or know the name of the network you wish to delete, you may first list all available networks.

## Cleura Cloud Management Panel      OpenStack CLI

Fire up your favorite web browser, navigate to the [Cleura Cloud Management Panel](#) start page, and

In the vertical pane on the left-hand side of the dashboard, expand the *Networking* section and click `carmacks`, so now you want to delete it.



Dashboard



Compute



Networking



Networks

Routers

Load Balancers

Floating IPs

Subnets

Ports



VPN Services



Storage



Images



Security Groups



Orchestration



Kubernetes



/ Networking / Networks



Region ▲ Id



Frankfurt / Germany (1:1)



fra1



6c34



Karlskrona / Sweden (4:4)



kna1



2a81a



kna1



2da6



kna1



e0c4



kna1



9ae5



Stockholm / Sweden (0:0)



Tokyo / Japan ⓘ

To list all available networks in the region you are currently in, type the following:

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

```
+-----+-----+-----+
| ID              | Name      | Subnets          |
+-----+-----+-----+
| 1f94d315-7ca1-4d44-acc1-09c6c650df74 | mayo      |                    |
| 9b127d2c-01d7-4803-994f-f88292870c1d | teslin    | bd1d0ff2-7270-4a9a-a7ad-fff47e997e7b |
| cb0a298a-bbb6-4ad6-832a-1456dafa45db | carmacks   | 7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5 |
| e0c4ce17-2722-4777-8140-d6c87479e190 | network-kna1 | 421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9 |
+-----+-----+-----+
```

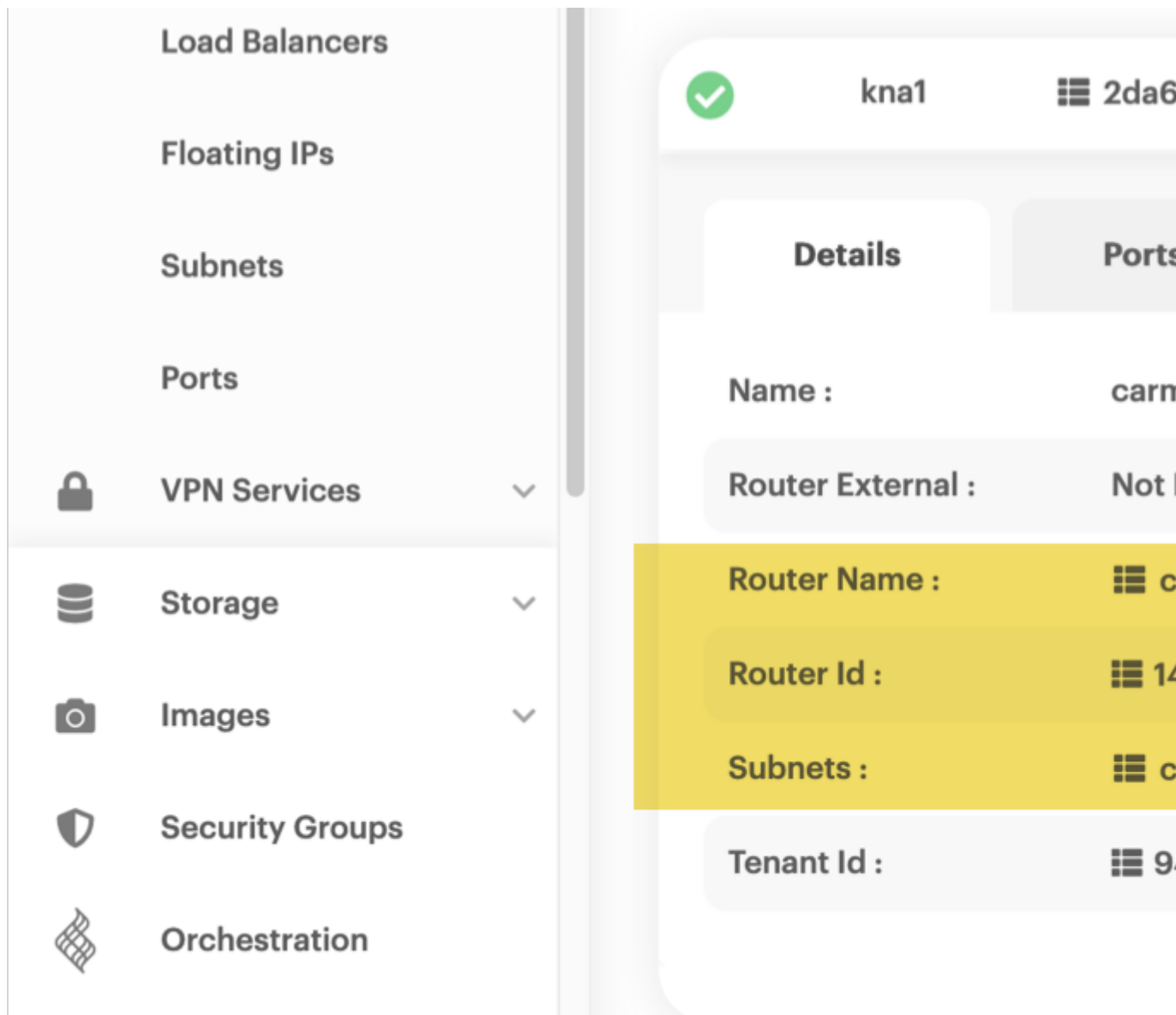
Let us assume you wish to delete the network named `carmacks`.

## Determining component dependencies

If the network to be deleted has a subnet component — and most likely it will have —, you will first have to delete the subnet before deleting the network. If, in addition, the network is behind a router (figurately speaking), then before deleting the subnet, you will have to disconnect it from the router. Finally, you will have the option to delete the router also. Let us see what the situation is with network `carmacks`.

## OpenStack Management Portal - OpenStack GUI

For more information on `carmacks`, click the three-dot icon (right-hand side of the network row) and behind a router. You may click on tabs *Subnets* and *Routers*, to see more information regarding the



To quickly check whether network `carmacks` has a subnet or not, type:

```
openstack network show carmack -c subnets
```

```
+-----+-----+
| Field | Value |
+-----+-----+
| subnets | 7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5 |
+-----+-----+
```

If the value for the field `subnets` is non-empty, like in the example output above, that means the net

```
SUBNET_ID="7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5"
```

What about a router in front of `carmacks` ? You might try checking the output of this command:

```
openstack network show carmacks
```

```
+-----+-----+
| Field          | Value                                |
+-----+-----+
| admin_state_up | UP                                  |
| availability_zone_hints |                                     |
| availability_zones | nova                              |
| created_at      | 2022-12-09T18:52:09Z              |
| description     |                                     |
| dns_domain      | None                               |
| id              | cb0a298a-bbb6-4ad6-832a-1456dfe45db |
| ipv4_address_scope | None                              |
| ipv6_address_scope | None                              |
| is_default      | None                              |
| is_vlan_transparent | None                             |
| mtu             | 1500                              |
| name            | carmacks                          |
| port_security_enabled | True                             |
| project_id      | 94109c764a754e24ac0f6b01aef82359 |
| provider:network_type | None                             |
| provider:physical_network | None                             |
| provider:segmentation_id | None                             |
| qos_policy_id   | None                              |
| revision_number | 2                                 |
| router:external | Internal                          |
| segments       | None                              |
| shared         | False                             |
| status         | ACTIVE                            |
| subnets       | 7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5 |
| tags           |                                     |
| tenant_id      | 94109c764a754e24ac0f6b01aef82359 |
| updated_at     | 2022-12-09T18:55:18Z              |
+-----+-----+
```

While it usually pays off to use `openstack` commands with the verb `show` on various objects, in this different vantage point. Try, in particular, to list all routers:

```
openstack router list
```

```
+-----+-----+-----+-----+-----+-----+
| ID          | Name          | Status | State | Project          | HA |
+-----+-----+-----+-----+-----+-----+
| 5ac45739-a379-4936- | router-kna1   | ACTIVE | UP    | 94109c764a754e24ac0f6b | True |
| 8b1b-67d10e017f4d  |               |        |       | 01aef82359           |      |
| 79ff91ae-91b5-4991- | carmacks-router | ACTIVE | UP    | 94109c764a754e24ac0f6b | True |
| af61-91e923fac87b  |               |        |       | 01aef82359           |      |
+-----+-----+-----+-----+-----+-----+
```

The name of the second router says it all, but since it is just a name, it doesn't hurt to verify the router's configuration.

```
openstack router show carmacks-router -c interfaces_info
```

```
+-----+-----+
| Field      | Value                                     |
+-----+-----+
| interfaces_info | [{"port_id": "439bc9d5-c8a9-4de1-93b9-b01e69258a56", "ip_address": "10.1.0.1", |
|               | "subnet_id": "7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5"}] |
+-----+-----+
```

Looking at the value of `interfaces_info`, it is easy to see that `subnet_id` has the value of the variable `SUBNET_ID`.

There will be times when router names won't help much. Then, try a more exhaustive search approach:

```
for i in $(openstack router list -f value -c Name); \
do echo Checking router "$i"; \
  openstack router show "$i" -f json -c interfaces_info \
  | grep "$SUBNET_ID"; \
done
```

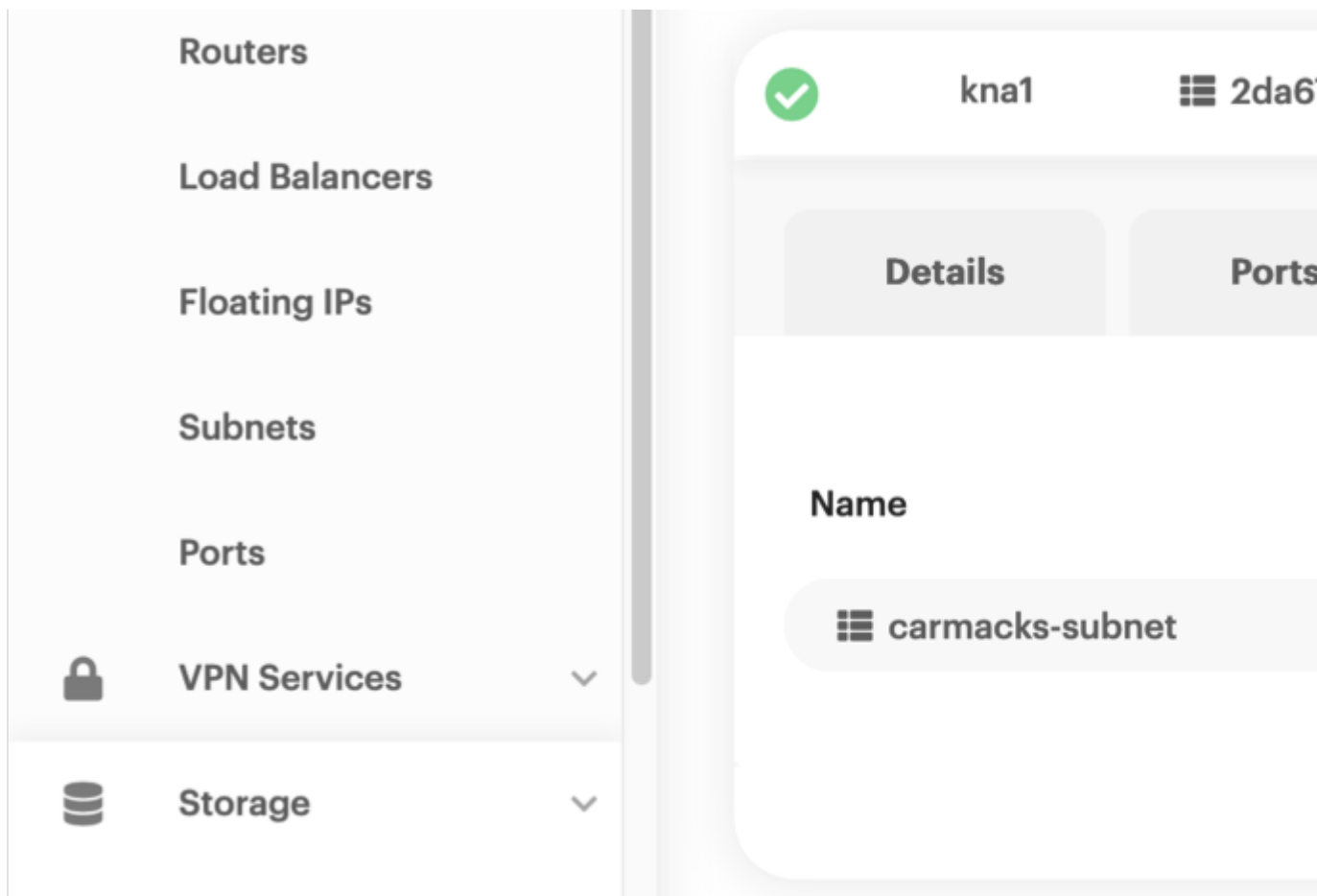
```
Checking router carmacks-router
  "subnet_id": "7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5"
Checking router router-kna1
```

## Tearing down networks

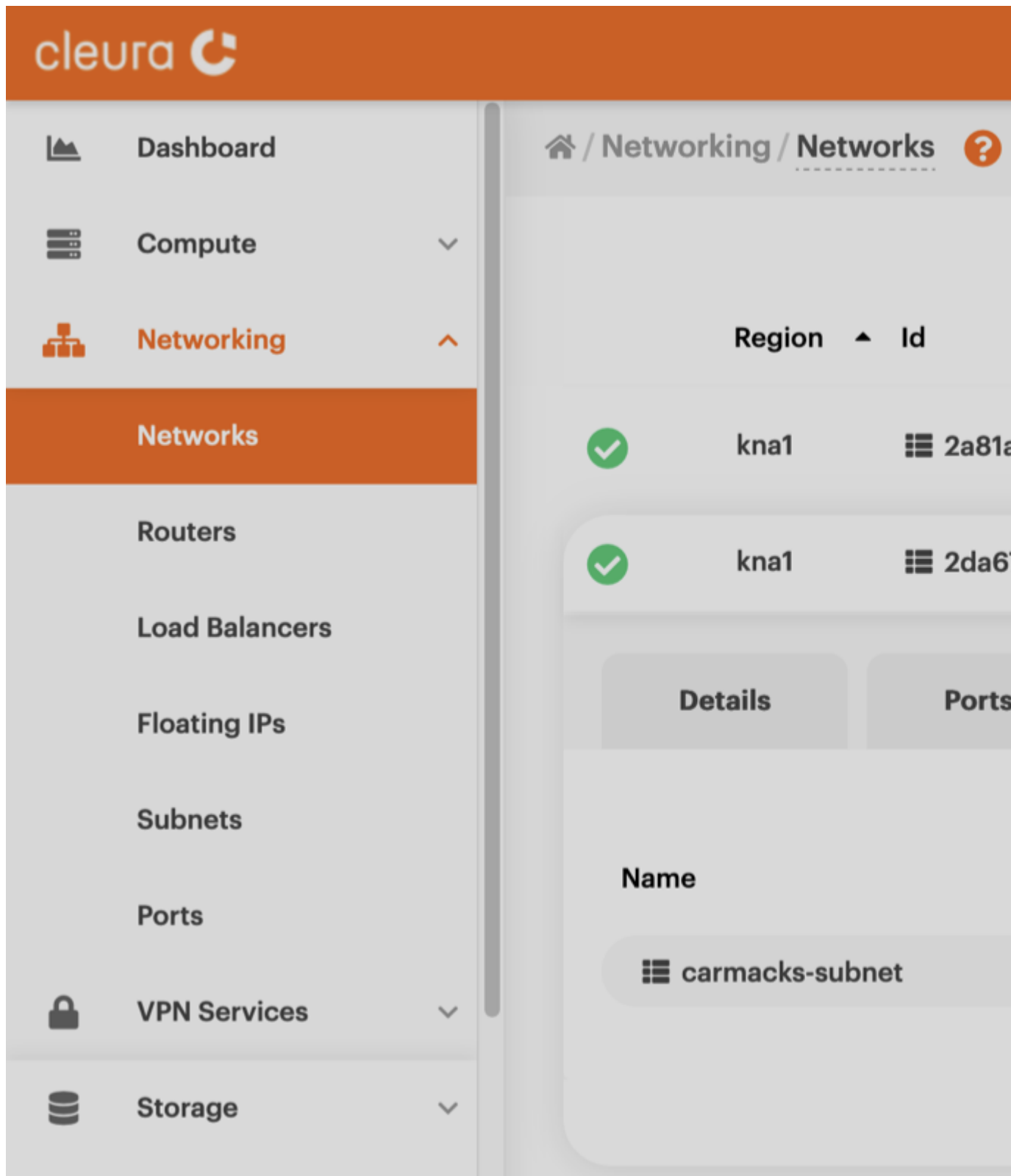
Now that you know you're dealing with a full-blown network and a router, you start by disconnecting the subnet from the router. Then, you will move on to deleting the subnet and the network, and after that, you can finish up with deleting the router.



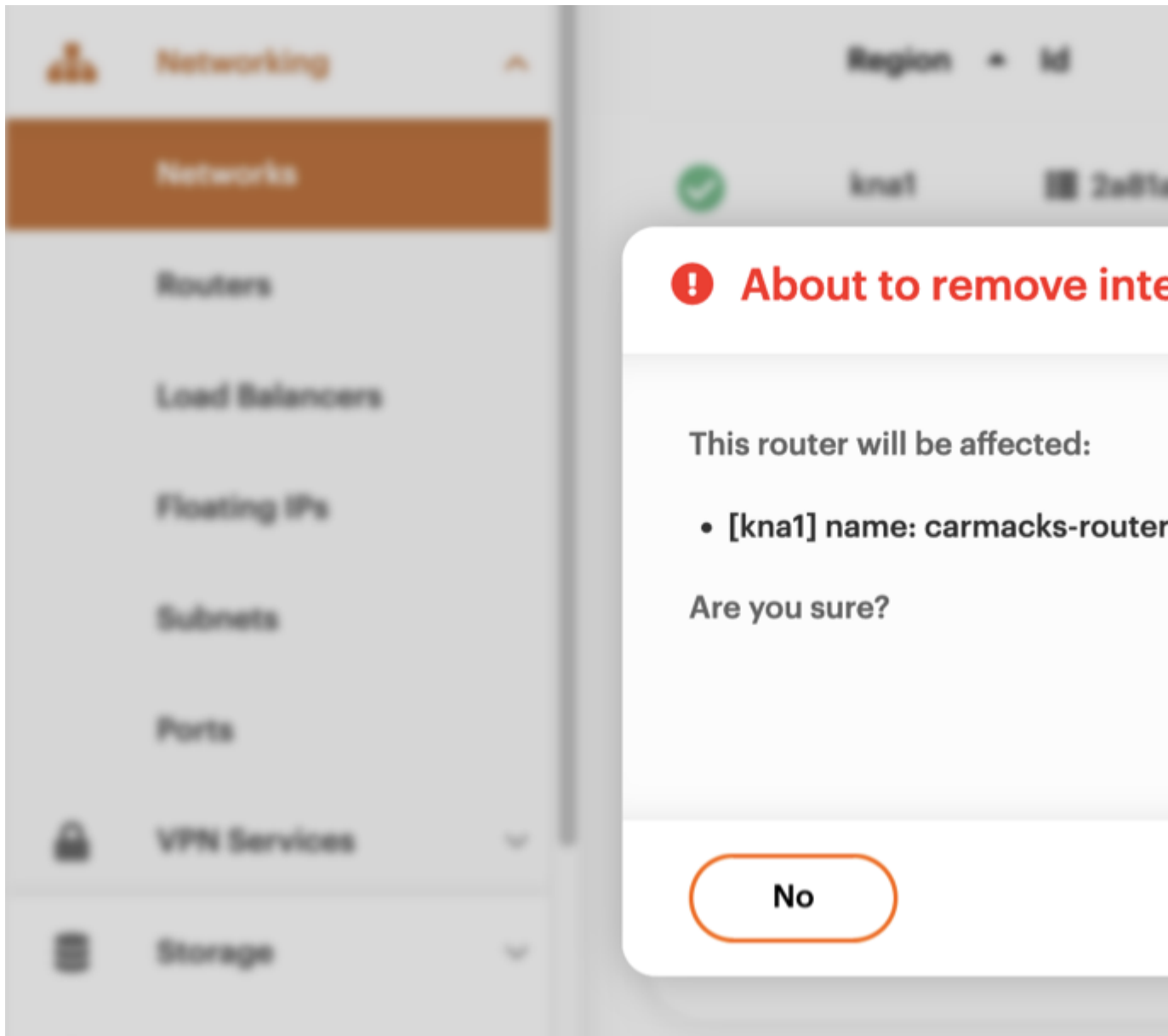
Go to the *Subnets* tab of the `carmacks` network, and click the gray notepad-and-pen icon (at the left



A vertical pane titled *Modify Subnet* will slide over from the right-hand side of the page. Pay attent



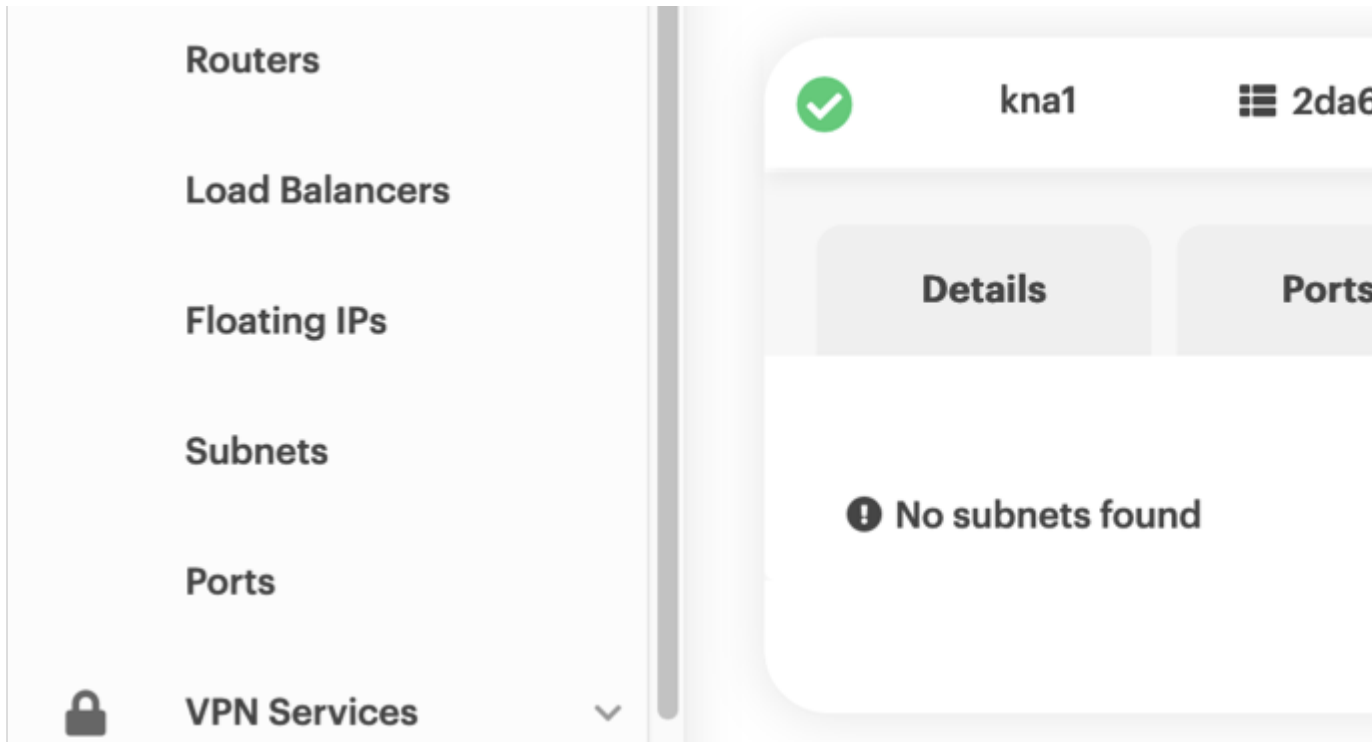
A pop-up window will appear, asking if you really want to go ahead with the disconnection. Just click



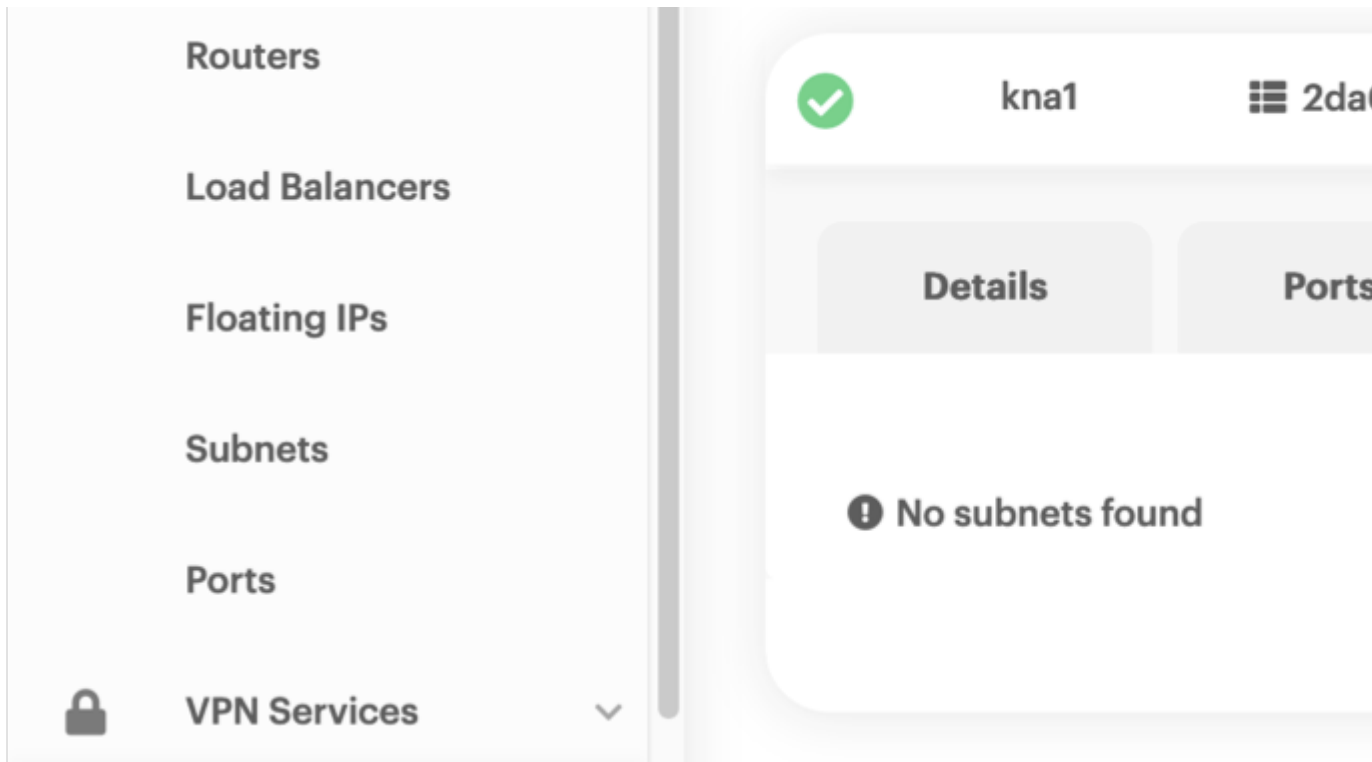
After disconnecting the subnet, click the red circle-and-trashcan icon to delete it. Once more, a pop



As soon as you delete the subnet, in the *Subnets* tab you will see the message *No subnets found*.



You can now delete the network. Click the three-dot icon (right-hand side of the network row) and



Of course, you will have to confirm this action. Clicking the red *Yes, Delete* button is enough.

Networks			
	Routers		
	Load Balancers		
	Floating IPs		
	Subnets		
	Ports		
	VPN Services		
	Storage		
	Images		



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After deleting the network, it will not be on the list of all available networks.

The screenshot shows the AWS Management Console interface. On the left is a navigation menu with the 'Networking' section selected and expanded. The 'Networking' section includes 'Networks' (highlighted in orange), 'Routers', 'Load Balancers', 'Floating IPs', 'Subnets', 'Ports', and 'VPN Services'. Below 'Networking' are other categories: 'Storage', 'Images', 'Security Groups', 'Orchestration', and 'Kubernetes'. On the right, a list of regions is displayed with columns for 'Region' and 'Id'. The regions listed are Frankfurt / Germany (1:1), Karlskrona / Sweden (3:3), Stockholm / Sweden (0:0), Tokyo / Japan, and Dubai / UAE. Each region entry has a green checkmark in the 'Region' column and an 'Id' in the 'Id' column.

Region	Id
Frankfurt / Germany (1:1)	6c3
Karlskrona / Sweden (3:3)	2a8
Stockholm / Sweden (0:0)	9ae
Tokyo / Japan	e0c
Dubai / UAE	

There's still that router lying around, and if you have no use for it, go to the *Routers* page to delete

 **Networking** 

Networks



**Routers**



Load Balancers



Floating IPs


Subnets


Ports



 VPN Services 


 Storage 


 Images 



 Security Groups


 Orchestration



 Kubernetes 



Region  Id


 Frankfurt / Germany (1:1)



 fra1  62f885



 Karlskrona / Sweden (2:2)

 kna1  14635b

 kna1  5ac457

 Stockholm / Sweden (0:0)

 Tokyo / Japan 

 Dubai / UAE 

Click the red three-dot icon of the router you wish to delete and select *Delete Router*. A pop-up will





After successfully deleting the router, there will be no trace of it in the list of all routers.


**Networking**


Networks

**Routers**

Load Balancers

Floating IPs

Subnets

Ports

 VPN Services 

 Storage 

 Images 

Region  Id

 Frankfurt / Germany (1:1)



fra1

 62f885

 Karlskrona / Sweden (1:1)



kna1

 5ac457

 Stockholm / Sweden (0:0)

 Tokyo / Japan 

 Dubai / UAE 

First, take a look at all available subnets:

```
openstack subnet list
```

```
+-----+-----+-----+-----+
| ID           | Name       | Network                     | Subnet |
+-----+-----+-----+-----+
| 421d8fd2-dd7f-4f7c-9a51- | subnet-kna1 | e0c4ce17-2722-4777-8140- | 10.15.20.0/24 |
| 42ef4a866dd9           |             | d6c87479e190             |            |
| 7fa9e5a2-7d5a-466e-b120- | carmacks-subnet | cb0a298a-bbb6-4ad6-832a- | 10.1.0.0/24 |
| 7d2bffb99ce5           |             | 1456dafa45db             |            |
| bd1d0ff2-7270-4a9a-a7ad- | teslin-subnet | 9b127d2c-01d7-4803-994f- | 10.254.0.0/24 |
| fff47e997e7b           |             | f88292870c1d             |            |
+-----+-----+-----+-----+
```

As you would expect, included on the list is subnet `carmacks-subnet` , which you are about to delete.

```
openstack subnet delete $SUBNET_ID
```

```
Failed to delete subnet with name or ID '7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5': ConflictException: 409:
Client Error for url: kna1.citycloud.com:9696/v2.0/subnets/7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5,
Unable to complete operation on subnet 7fa9e5a2-7d5a-466e-b120-7d2bffb99ce5:
One or more ports have an IP allocation from this subnet.
1 of 1 subnets failed to delete.
```

The trick here is to first disconnect the subnet from the corresponding router, which is perfectly do

```
openstack router remove subnet carmacks-router $SUBNET_ID
```

If the command above is successful, you will see no output on your terminal. Now, an attempt to de

```
openstack subnet delete $SUBNET_ID
```

Again, no command output means success, but we suggest you check yourself:

```
openstack subnet list
```

ID	Name	Network	Subnet
421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9	subnet-kna1	e0c4ce17-2722-4777-8140-d6c87479e190	10.15.20.0/24
bd1d0ff2-7270-4a9a-a7ad-fff47e997e7b	teslin-subnet	9b127d2c-01d7-4803-994f-f88292870c1d	10.254.0.0/24

The subnet `carmacks-subnet` is not on the list, which is what you wanted exactly. Next is network `car`

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

ID	Name	Subnets
1f94d315-7ca1-4d44-acc1-09c6c650df74	mayo	
9b127d2c-01d7-4803-994f-f88292870c1d	teslin	bd1d0ff2-7270-4a9a-a7ad-fff47e997e7b
cb0a298a-bbb6-4ad6-832a-1456dafa45db	carmacks	
e0c4ce17-2722-4777-8140-d6c87479e190	network-kna1	421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9

Network `carmacks` is on the list, and by looking at the `Subnets` column, you see that it has no subne

```
openstack network delete carmacks
```

No command output signals success, but it never hurts to verify yourself:

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

```
+-----+-----+-----+
| ID              | Name      | Subnets          |
+-----+-----+-----+
| 1f94d315-7ca1-4d44-acc1-09c6c650df74 | mayo      |                    |
| 9b127d2c-01d7-4803-994f-f88292870c1d | teslin    | bd1d0ff2-7270-4a9a-a7ad-fff47e997e7b |
| e0c4ce17-2722-4777-8140-d6c87479e190 | network-kna1 | 421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9 |
+-----+-----+-----+
```

Network `carmacks` is gone, and if you have no use of `carmacks-router`, go ahead and delete it:

```
openstack router delete carmacks-router
```

There is no output on the terminal, and yet the router is gone:

```
openstack router list
```

```
+-----+-----+-----+-----+-----+-----+
| ID              | Name      | Status | State | Project          | HA |
+-----+-----+-----+-----+-----+-----+
| 5ac45739-a379-4936-8b1b-67d10e017f4d | router-kna1 | ACTIVE | UP    | 94109c764a754e24ac0f6b01aef8 | True |
+-----+-----+-----+-----+-----+-----+
```

## Networks with a subnet but no router

These are faster to delete, for there is no router to disconnect the subnet from.

For our demonstration, we created network `teslin`, with subnet `teslin-subnet` and no router in front of it.

Cloud Management Portal - OpenStack GUI

In the vertical pane on the left-hand side of the dashboard, expand the *Networking* section and click

Looking at the network details, it is immediately apparent that there's no router in front of it.



Dashboard



Compute



Networking



Networks

Routers

Load Balancers

Floating IPs

Subnets

Ports



VPN Services



Storage



Images



Security Groups



Orchestration



Kubernetes



/ Networking / Networks

Region  Id Karlskrona / Sweden (3:3)

kna1

 2a81

Details

Ports

Name :

teslin

Router External :

Not F

Router Name :

-

Router Id :

-

Subnets :

 te

Tenant Id :

 94

kna1

 9ae5

kna1

 e0a5

Go to the *Subnets* tab, and click the red circle-with-trashcan icon to delete the subnet.



Then, click the red three-dot icon at the right-hand side of the `teslin` row, and select *Delete Network*.



Let us first take a look at all available networks...

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

```
+-----+-----+-----+
| ID                | Name      | Subnets          |
+-----+-----+-----+
| 1f94d315-7ca1-4d44-acc1-09c6c650df74 | mayo      |                    |
| 9b127d2c-01d7-4803-994f-f88292870c1d | teslin    | bd1d0ff2-7270-4a9a-a7ad-fff47e997e7b |
| e0c4ce17-2722-4777-8140-d6c87479e190 | network-kna1 | 421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9 |
+-----+-----+-----+
```

...and at all available subnets:

```
openstack subnet list
```

```
+-----+-----+-----+-----+
| ID                | Name      | Network            | Subnet      |
+-----+-----+-----+-----+
| 421d8fd2-dd7f-4f7c-9a51- | subnet-kna1 | e0c4ce17-2722-4777-8140- | 10.15.20.0/24 |
| 42ef4a866dd9          |             | d6c87479e190          |               |
+-----+-----+-----+-----+
```



```
| bd1d0ff2-7270-4a9a-a7ad- | teslin-subnet | 9b127d2c-01d7-4803-994f- | 10.254.0.0/24 |
| fff47e997e7b | | f88292870c1d | |
+-----+-----+-----+-----+
```

Since there is nothing to disconnect the `teslin-subnet` from, you may go ahead and delete the subnet

```
openstack subnet delete teslin-subnet
```

There is no command output. This is expected, but why not check yourself?

```
openstack subnet list
```

```
+-----+-----+-----+-----+
| ID          | Name      | Network              | Subnet      |
+-----+-----+-----+-----+
| 421d8fd2-dd7f-4f7c-9a51- | subnet-kna1 | e0c4ce17-2722-4777-8140- | 10.15.20.0/24 |
| 42ef4a866dd9 | | d6c87479e190 | |
+-----+-----+-----+-----+
```

Finally, network `teslin` can go away with a single command:

```
openstack network delete teslin
```

The absence of any output means the command was successful. Take a look yourself:

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

```
+-----+-----+-----+
| ID          | Name      | Subnets              |
+-----+-----+-----+
| 1f94d315-7ca1-4d44-acc1-09c6c650df74 | mayo      | |
| e0c4ce17-2722-4777-8140-d6c87479e190 | network-kna1 | 421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9 |
+-----+-----+-----+
```

## Networks with no subnet and no router

You may directly, without the slightest preparation, delete networks like these. For our demonstration, we created a network named `mayo`, with no subnet and no router in front of it.

## **Cleura Cloud Management Panel      OpenStack CLI**

While viewing all available networks, click the red three-dot icon at the right-hand side of the may



Dashboard



Compute



Networking



Networks

Routers

Load Balancers

Floating IPs

Subnets

Ports



VPN Services



Storage



Images



Security Groups



Orchestration



Kubernetes

[Home](#) / [Networking](#) / [Networks](#)

Region



Id



fra1

6c3



Karlskrona / Sweden (2:2)



kna1

9ae

Details

Ports

Name :

mayo

Router External :

Not F

Router Name :

-

Router Id :

-

Subnets :

None

Tenant Id :

94

Once more, take a look at all remaining networks:

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

```
+-----+-----+-----+
| ID              | Name      | Subnets          |
+-----+-----+-----+
| 1f94d315-7ca1-4d44-acc1-09c6c650df74 | mayo      |                    |
| e0c4ce17-2722-4777-8140-d6c87479e190 | network-kna1 | 421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9 |
+-----+-----+-----+
```

Since `mayo` has no subnet, issue a single command to delete it:

```
openstack network delete mayo
```

And, yes, it is still a good idea to check yourself:

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

```
+-----+-----+-----+
| ID              | Name      | Subnets          |
+-----+-----+-----+
| e0c4ce17-2722-4777-8140-d6c87479e190 | network-kna1 | 421d8fd2-dd7f-4f7c-9a51-42ef4a866dd9 |
+-----+-----+-----+
```

## Recap: Of networks and towns

Depending on the features of a Neutron network, deleting it may require some preparation work. For the purposes of this guide, we created three different networks with different characteristics; `carmacks`, `teslin`, and `mayo`. Then, either from the Cleura Cloud Management Panel or with the help of OpenStack CLI, we showed how we discover any component dependencies and how we work towards deletion. Eventually, all three test networks were gone. We should point out, though, that all three namesake towns in Yukon are still there.

Last update: 2022-12-10

Created: 2022-12-10

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