



Enterprise Claro Cloud

User Manual

v1.1.5

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Version Table

No. Version	Date	Details
1.0	27/08/2021	Launch of User Manual
1.1	29/11/2021	New chapters <ol style="list-style-type: none">1. Managing Resource Limits in Resource Pool Subscriptions – Page 12 - 152. Distributed Firewall - Page 32 - 363. API Management – Page 151 - 153
1.1.2	23/12/2021	Adequacy of Open VPN Activation Process – Page 47
1.1.3	26/01/2022	Adding 2 New User Roles – Page 147 L2VPN Configuration – Page 41 – 48 Setting Up a Load Balancer – Page 60 - 64 Application Catalog Update – Page 153-154
1.1.4	29/04/2022	Added expanded K8s Tanzu Grid
1.1.5	01/09/2022	Updated sections for: <ul style="list-style-type: none">- Portal with tokens via SMS- VM template creation- Kubernetes clusters- Horizontal auto-scaling

1. Introduction

This document is intended for Enterprise Claro Cloud users to configure and manage their cloud services.

The instructions in this guide reflect the Enterprise Claro Cloud web console (HTML5-based UI) and provides you with clear and precise guidance on the processes required to manage the platform.

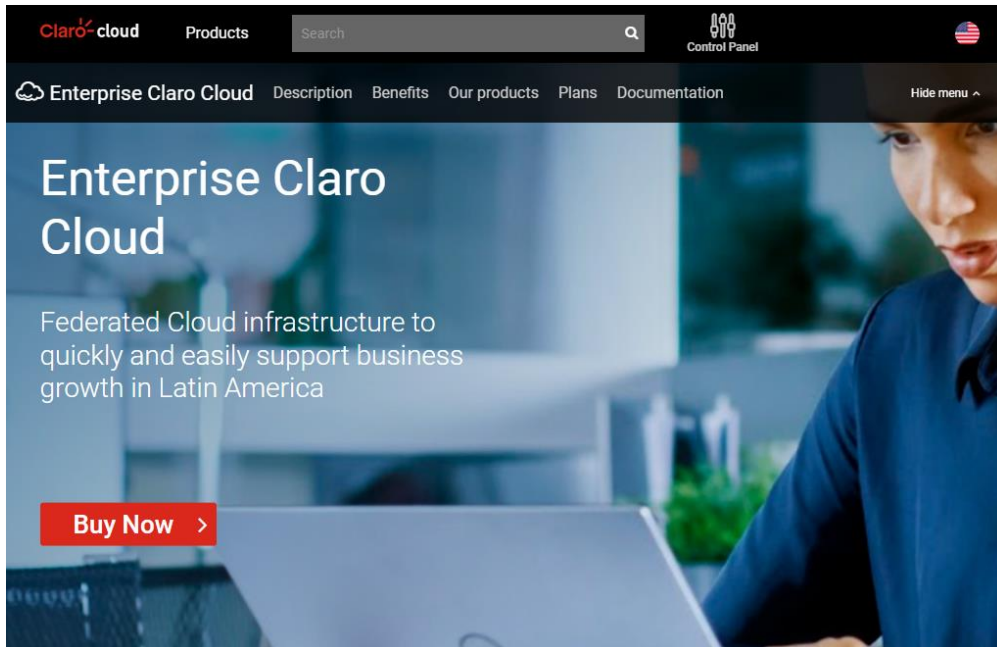
Enterprise Claro Cloud is a cloud platform where you can host applications and simplify the development of new applications. It integrates the cloud services needed to develop, test, deploy and manage your cloud computing resources.

With Enterprise Claro Cloud you can easily scale your resources as your demand increases, while also offering the reliability you need to ensure high availability between different Enterprise Claro Cloud regions. The Enterprise Claro Cloud dashboard allows you to easily manage all services within Claro Cloud. In addition, you are also able to manage your cloud services using APIs.

2. How to purchase Enterprise Claro Cloud

You can purchase the Enterprise Claro Cloud service through

<https://www.usclarocloud.com/portal/us/cld/products/infrastructure/enterprise-claro-cloud>



1. Go to the "plans and pricing" section where you will find the available plans of the service, by clicking on the "Buy" button of the plan that suits your needs

Plans and Prices

On-Demand	Resource Pool
Only pay for what you use, deploy the right VM for your workload (custom & right-size)	Fixed, predictable monthly or yearly price. Assign a fixed pool of vCPU, RAM, and Storage resources—flexibility to deploy and control resources within the pool.
<ul style="list-style-type: none">✓ Hourly pricing for vCPU, RAM, and Storage.✓ Unlimited Resources	<ul style="list-style-type: none">✓ Start from 20 vCPUs, 50 GB Memory and 200 GB Storage✓ No hidden cost
\$0.00* /month	\$142.70* /month
BUY NOW >	BUY NOW >

2. The following screen will be displayed, where you can select, the type of plan, contracting period, computing region and the type of connectivity you require, by clicking on "Continue"
- On Demand

Claro cloud Products Search Control Panel

Service configuration

Select Plan

☒ **On-Demand - Monthly**
Hourly pricing for vCPU, RAM, and Storage.

Region and Network Setup

Claro Cloud Region

USA Miami

T1 Edge Gateway

Internet

Claro Cloud Infrastructure Web Presence Collaboration Security
What is Claro Cloud? Business Cloud Server Business Website Microsoft Office 365 McAfee

< Back Total cart: \$0.00 * BUY NOW >
* Taxes not included

- Resource Pool Plan

Claro cloud Products Search Control Panel

1 Choose your plan and Region 2 Resource Pool and Network Setup

Claro Cloud Region

USA Miami

Billing Options

☒ **Monthly**
No cancellation fees

☐ **Monthly with commitment**
A cancellation fee will apply

Select Subscription Period

Select a period

< Back Total cart: \$0.00 * BUY NOW >
* Taxes not included

3. If you chose a Resource Pool plan, you must define the size of the Resource Pool (vCPU, RAM, and Storage), as well as the "T1 Edge Gateway" connectivity type. At the end of click "Continue"

Claro cloud Products Search Control Panel

1 Choose your plan and Region 2 Resource Pool and Network Setup

Resource Pool

	Quantity	Unit price	Total
vCPU Virtual Data Center Total Compute resource pool. 1 vCPU = 2 GHz	20 vCPU	\$6.30 *	\$126.00
SSD Premium Storage Virtual Data Center Total SSD Premium Block Storage pool	200 GB	\$0.09 *	\$18.00
RAM Virtual Data Center Total RAM pool	50 GB	\$6.00 *	\$300.00

T1 Edge Gateway

Internet

< Back Total cart: \$444.00 * BUY NOW >

* Taxes not included

Important:

- The minimum capacity to contract is 20 vCPUs, 50 GB of RAM and 200 GB of Storage.
- The T1 Edge Gateway service in its Hybrid version, does not include the MPLS link, it can be purchased separately, through Claro.
- The contracting of the MPLS link is subject to availability and technical feasibility.
- For second purchases in the same compute region, the T1 Edge Gateway service will not be provisioned, in case a second instance is required to validate the Purchase section [of an additional T1 Edge Gateway](#)

4. The summary of the purchase will be displayed, click on "Process purchase"

Qty.	Product	Period	Price
1	Resource Pool - Miami - Monthly	1 month	\$444.00

[Hide Details](#)

1	Resource Pool - Miami - Monthly		\$444.00	Delete Plan
1	1 Month(s)		\$0.00	
20	vCPU		\$126.00	
50	RAM		\$300.00	
200	SSD Premium Storage		\$18.00	
1	Internet		\$0.00	

Do you have a promotion code?

Promotion code

Subtotal \$444.00
Tax \$79.92

[< Back](#) **Total cart: \$444.00** [Continue >](#)

* Taxes not included

- If you are already a Claro Cloud customer, it will be required to enter your username and password of your Cloud account, by clicking on "Login"
If you are not a customer please call our Sales Team at +1-833-992-5276

Sign in

Enter your account information

User

Password

[Sign in >](#)

[Forgot your password?](#)

- After login in the following screen will be displayed where you must accept the Terms and Conditions of the Enterprise Claro Cloud service, by clicking on "Place your order"

Important: Payment for the service will be made through your monthly Claro invoice

Claro-cloud

Products

Search

Control Panel

Qty.	Product	Period	Price
1	Resource Pool - Miami - Monthly <small>Resource Pool - Miami - Monthly (1) 1 Month(s) (20) vCPU (50) RAM (200) SSD Premium Storage (1) Internet</small>	monthly charge	\$444.00

☐ I have read and I agree to the [Claro Enterprise Solutions, LLC Terms of Service.](#)

Total: \$444.00

Place your order >

8. The following screen will be displayed confirming your order

Claro-cloud

Products

Search

Control Panel

Thanks!

Your purchase has been successful S0001402

Keep buying >

9. You will receive two notifications to your email account:

- Purchase confirmation

Order Sales Order SO001407 placed - Provisioning



US Claro Cloud <cloudinfo@usclaro.com>

To Activation Specialist Cloud Services

If there are problems with how this message is displayed, click here to view it in a web browser.

Below are your current account details including the most recent updates and changes.

Account Details

Adriaana Peerez						Detail	
FF CES Test 06						Order Number: SO001407	
38 sw 160 av,						Order Type: Sales Order	
Miramar FL, 33029, United States of America						Order Status: Provisioning	
						Order Date: 26-Nov-2021	
ID.	Service Description	Quantity	Unit of Measure	Unit Price	From Date	To Date	Total Amount
1	On-Demand - Monthly	1	item	0.00			USD 0.00
						Estimated tax to be collected:	USD 0.00
						Total Purchase:	USD 0.00

- Welcome email with your username and URL to define your password to enter the Enterprise Claro Cloud portal

Workspace ONE Access Local User Notification



no-reply@clarocloud.com

Para Jonathan Vallejo (c)



11:39 AM

Haga clic aquí para descargar imágenes. Para ayudarle a proteger su confidencialidad, Outlook ha impedido la descarga automática de algunas imágenes en este mensaje.

Hello Jonathan Vallejo,

Welcome to Workspace ONE Access!

Workspace ONE Access provides secure, managed access to Windows, SaaS and enterprise web applications across different devices while retaining control and visibility via policy-driven management.

Your username is **admin.U5333444**

Your First Login URL is [https://sso-lab.clarocloud.com/SAAS/auth/reset?](https://sso-lab.clarocloud.com/SAAS/auth/reset?token=eyJ1c2VybWtZSI6ImFkbWlulVtMzMzNDQ0liwiZG9tYWluljoiQ2xhcm9jbG91ZC5jb20iLCJjb2RlljoiJS5YftV3bWZlWjJuOT9iTSJ9)

[token=eyJ1c2VybWtZSI6ImFkbWlulVtMzMzNDQ0liwiZG9tYWluljoiQ2xhcm9jbG91ZC5jb20iLCJjb2RlljoiJS5YftV3bWZlWjJuOT9iTSJ9](https://sso-lab.clarocloud.com/SAAS/auth/reset?token=eyJ1c2VybWtZSI6ImFkbWlulVtMzMzNDQ0liwiZG9tYWluljoiQ2xhcm9jbG91ZC5jb20iLCJjb2RlljoiJS5YftV3bWZlWjJuOT9iTSJ9)

This link will expire in 7 day(s).

Please click this link to access your account.

Thank you for using Workspace ONE Access.

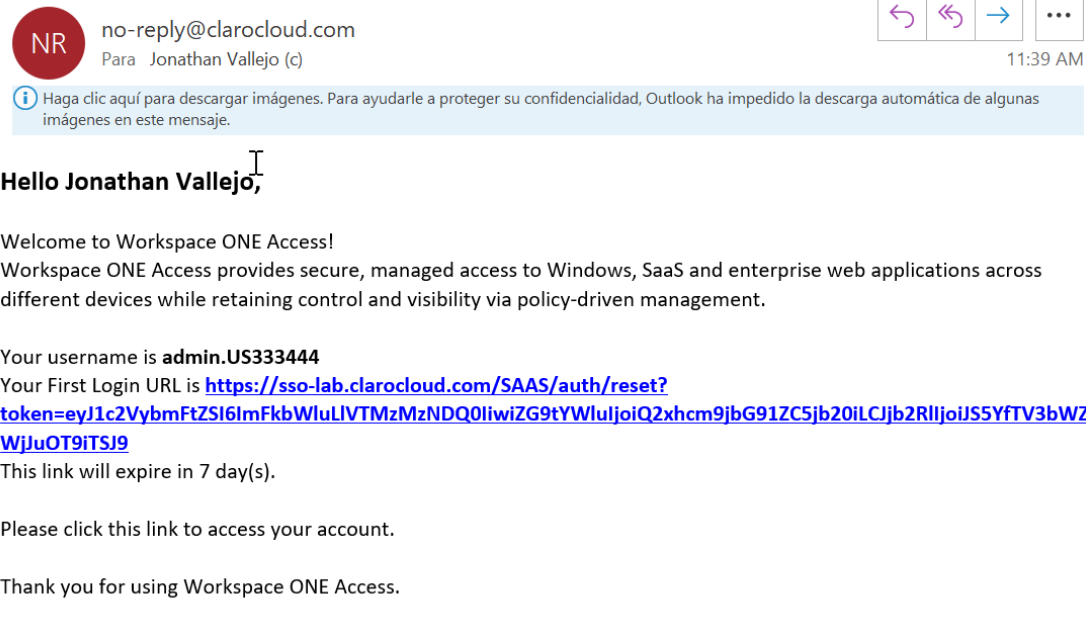
3. How to purchase Enterprise Claro Cloud with SMS

Access to the Enterprise Claro Cloud portal with tokens via SMS

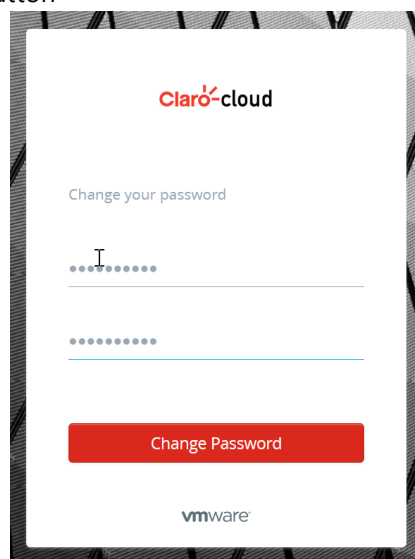
In countries such as the Dominican Republic and Puerto Rico, SMS messages may not be received for linking the Verify application, so it is necessary to run the following process to enter your service.

1. At the end of the purchase process you will receive an e-mail with the necessary access information to be able to enter your service. As shown in the following image

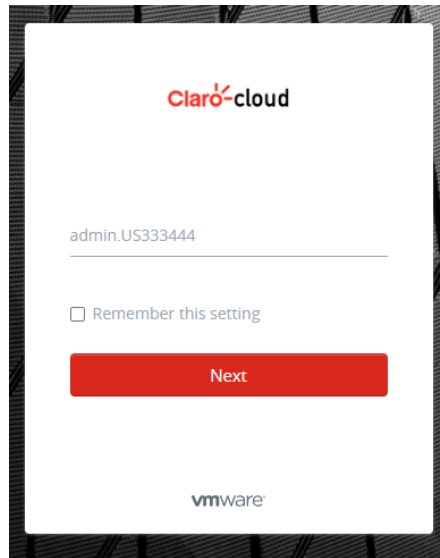
Workspace ONE Access Local User Notification



2. Enter in the web browser of your preference the URL attached to the e-mail, the following interface will be displayed where you will define your access password. At the end of clicking on the "Change Password" button

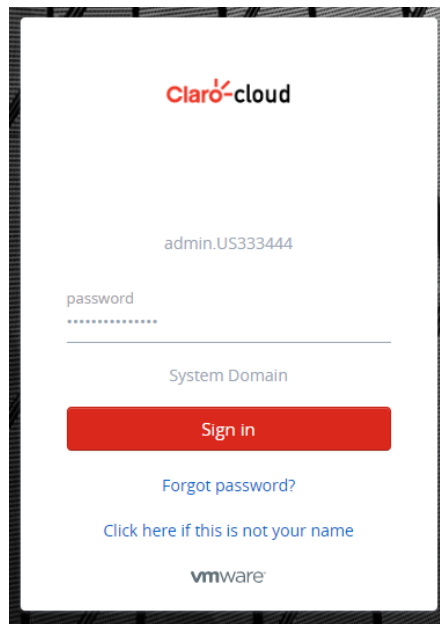


3. Enter your username, which you will find in the body of the e-mail previously received



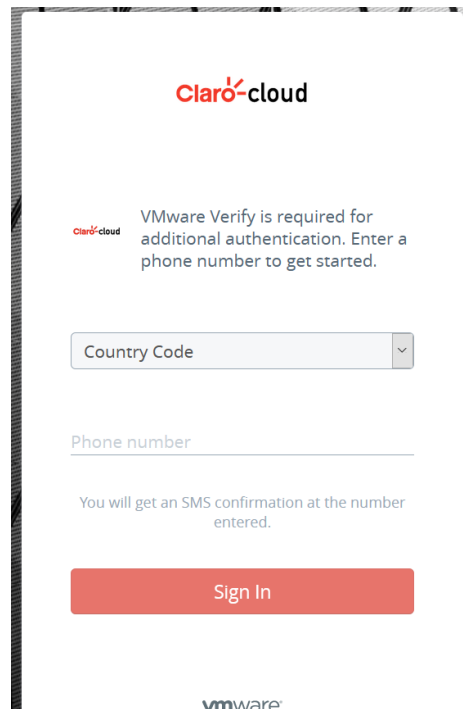
The image shows a login interface for 'claro-cloud'. At the top is the logo. Below it is a text input field containing the username 'admin.US333444'. Underneath the input field is a checkbox labeled 'Remember this setting'. A red button with the text 'Next' is positioned below the checkbox. At the bottom of the interface is the 'vmware' logo.

4. Enter the previously defined password



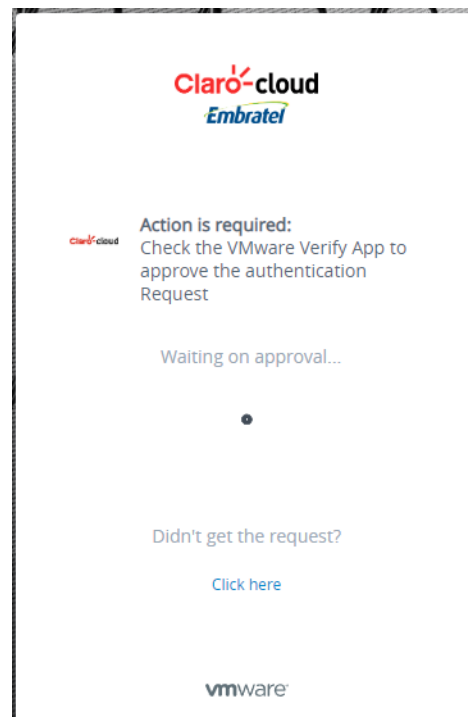
The image shows the same login interface for 'claro-cloud'. The username 'admin.US333444' is still in the top input field. Below it is a password input field labeled 'password' with a masked password '*****'. Underneath the password field is the text 'System Domain'. A red button with the text 'Sign In' is positioned below 'System Domain'. Below the 'Sign In' button are two links: 'Forgot password?' and 'Click here if this is not your name'. At the bottom of the interface is the 'vmware' logo.

5. Enter a phone number and country code, click Sign in



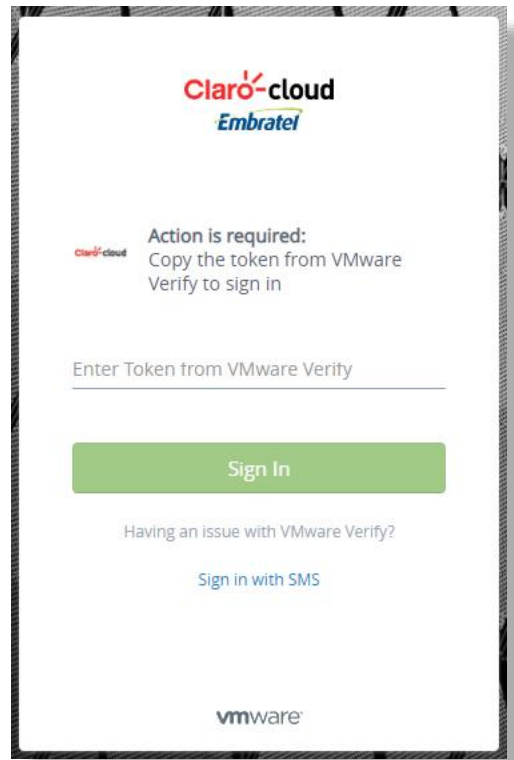
The image shows a mobile app login screen for ClaroCloud. At the top is the ClaroCloud logo. Below it, a message states: "VMware Verify is required for additional authentication. Enter a phone number to get started." There is a dropdown menu for "Country Code" and a text input field for "Phone number". A note below the input field says: "You will get an SMS confirmation at the number entered." At the bottom is a red "Sign In" button and the VMware logo.

6. Enter again to <https://sso.clarocloud.com/SAAS/auth/login>, indicate your previously defined username and password, click on Sign In, the following screen will appear



The image shows a mobile app authentication screen for ClaroCloud. At the top is the ClaroCloud logo with the Embratel logo below it. Below the logos, a message states: "Action is required: Check the VMware Verify App to approve the authentication Request". Below this is the text "Waiting on approval..." and a small circular progress indicator. At the bottom, there is a link that says "Didn't get the request?" followed by a "Click here" link. The VMware logo is at the very bottom.

7. By clicking on the Click here button, the following screen will appear



Claro cloud
Embratel

Claro cloud Action is required:
Copy the token from VMware
Verify to sign in

Enter Token from VMware Verify

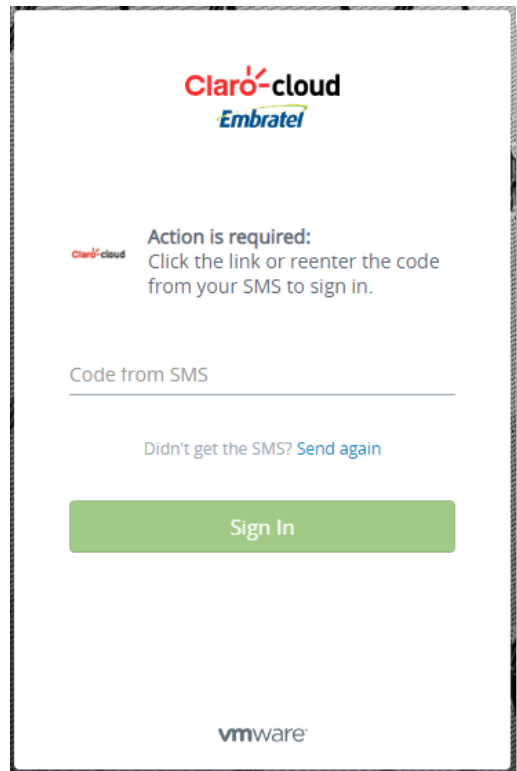
Sign In

Having an issue with VMware Verify?

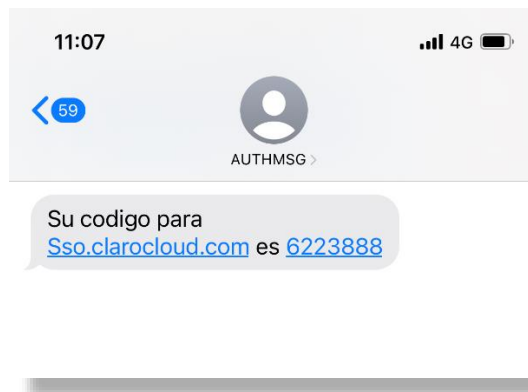
[Sign in with SMS](#)

vmware

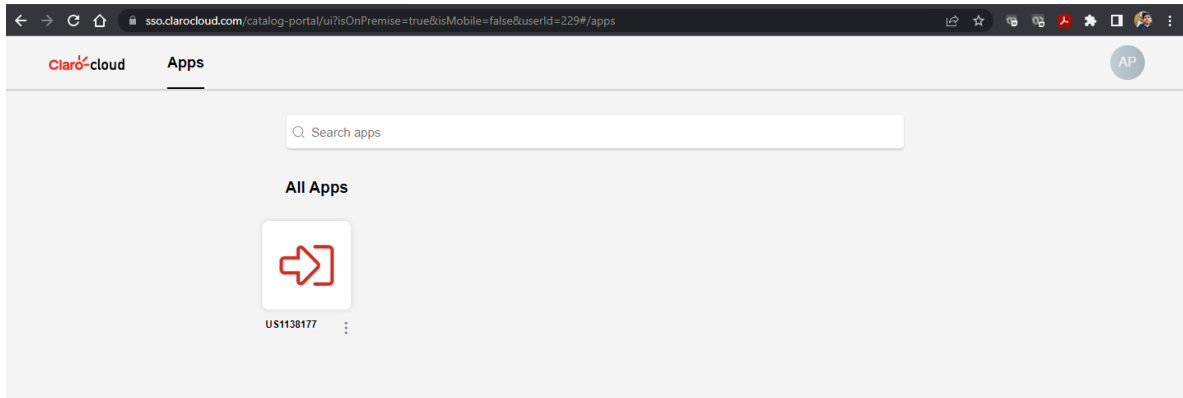
8. By clicking on the "Sign in with SMS" button, the following screen will appear.



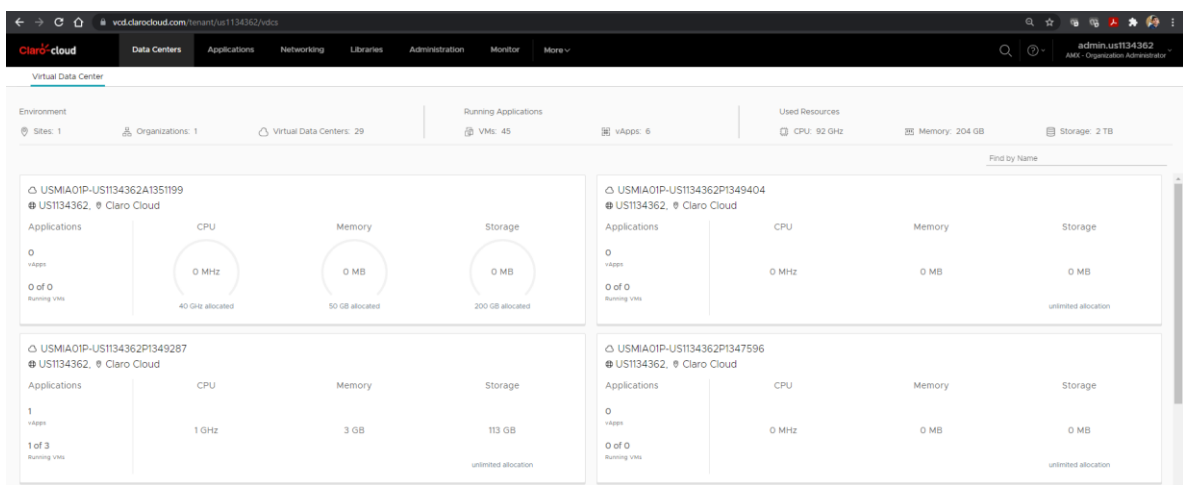
9. In parallel you will receive an SMS message to the phone registered in step 5, the SMS will contain a code which must be entered on the screen shown in the previous step, click on Sign In



10. When you enter the click code in Sign In, your web browser will open automatically the following screen



11. Click on the icon with the red arrow to enter your Claro Cloud Enterprise control panel where you can manage your cloud services. The following screen will open



For upcoming sessions to your Claro Cloud Enterprise dashboard use the following URL:

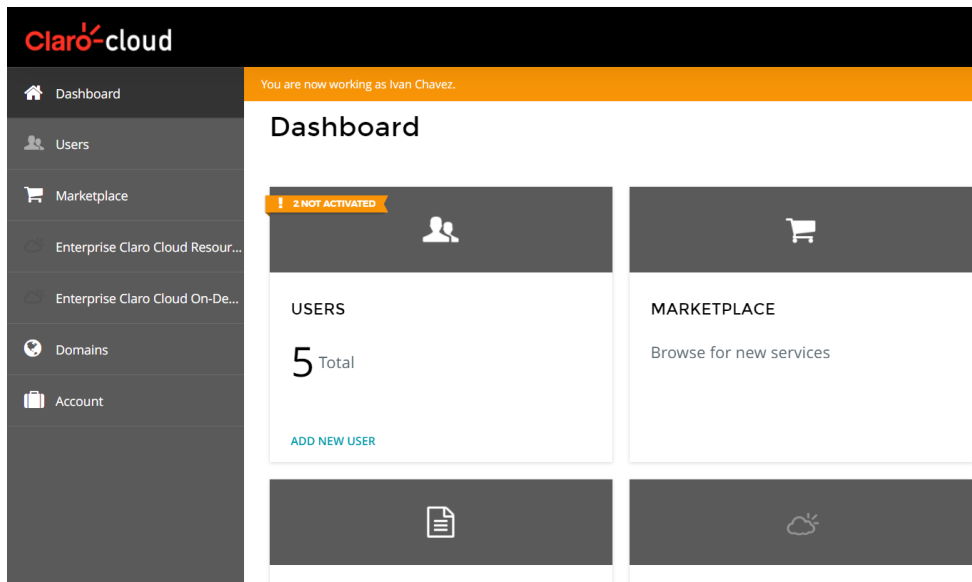
<https://sso.clarocloud.com/SAAS/auth/login>

Resource Limit Management in Resource Pool Subscriptions

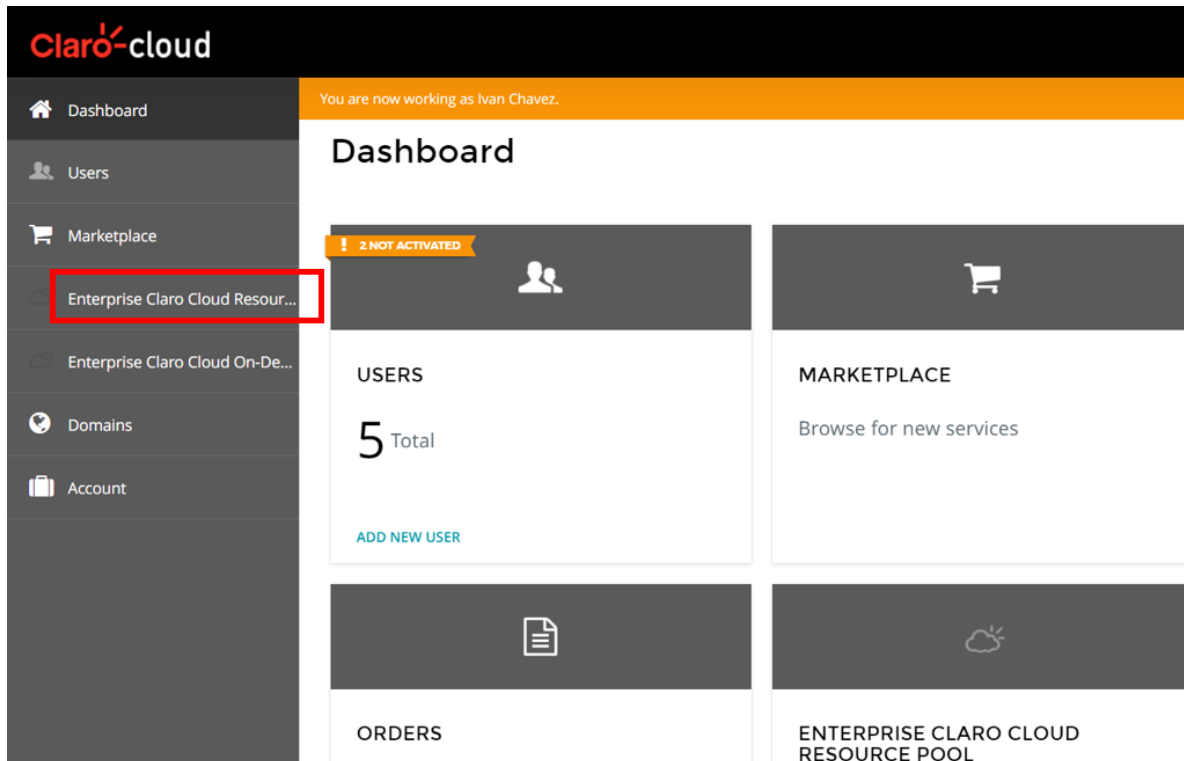
If you chose a subscription with the Resource Pool scheme you can manage the amount of vCPUs, GB of RAM and GB of storage from your portal.

Important: The minimum amount of resources allowed in a data center is 20 vCPUs, 50 GB of RAM, and 200 GB of storage.

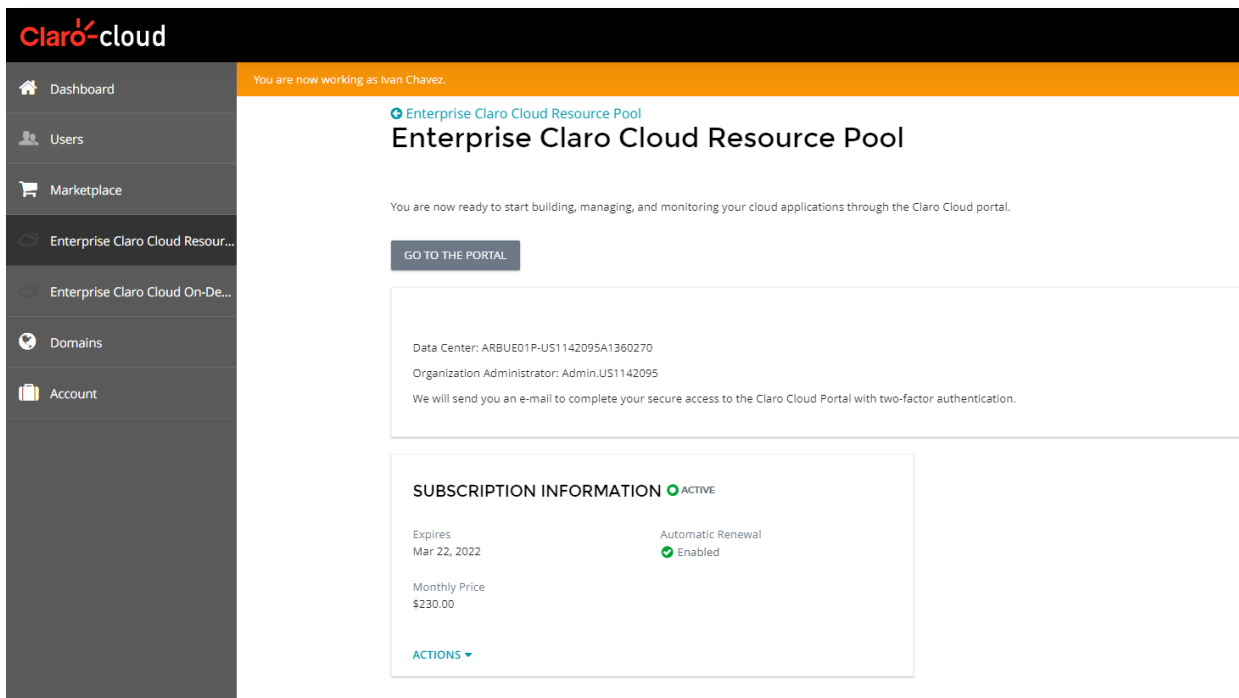
1. Log in to your admin panel <https://cp.usclarocloud.com/>



2. Click on the Enterprise Claro Cloud Resource Pool section, located on the left within the gray menu.



3. The following screen will open



4. If you have more than one Resource Pool subscription just click on the name of the subscription you want to modify.

claro-cloud

?

 Help

Ivan Chavez

Account ID: 1001638

!

Dashboard

Users

Marketplace

Enterprise Claro Cloud Resour...

Enterprise Claro Cloud On-De...

Cloud Servers

Marketplace


Domains

Account

You are now working as Ivan Chavez.

Enterprise Claro Cloud Resource Pool

ENTERPRISE CLARO CLOUD RESOURCE POOL



Enterprise Claro Cloud is a next-generation platform based on VMware technology. Secure, agile, robust, easy to manage and with no hidden costs.

Product ID

PRD-704-158-863

Subscriptions

PLAN NAME	SUBSCRIPTION ID	SUBSCRIPTION STATUS	
US: RESOURCE POOL - MIAMI - MONTHLY PAYMENT	1007409	Ready	MANAGE SUBSCRIPTION
RESOURCE POOL - BOGOTÁ - MONTHLY PAYMENT	1007395	Ready	MANAGE SUBSCRIPTION
RESOURCE POOL - MIAMI - MONTHLY PAYMENT	1007385	Ready	MANAGE SUBSCRIPTION

- At the bottom you will find a button called "Manage Limits", click on it.

claro-cloud

?

 Help

Ivan Chavez

Account ID: 1001638

!

Dashboard

Users

Marketplace

Enterprise Claro Cloud Resour...

Enterprise Claro Cloud On-De...

Cloud Servers

Marketplace

Domains

Account

You are now working as Ivan Chavez.

Monthly Price

\$430.00

ACTIONS

Resources

MANAGE LIMITS

SSD PREMIUM STORAGE

200 GB

USMIA0101

1 Virtual Data Center

CPU

40 GHz

RAM

50 GB

Subscription ID: 1007409 | Asset ID: AS-7157-6481-1481 | Product ID: PRD-704-158-863

6. The following screen will open where you can select the amount of resources you want to add to your Data Center. When you finish click "OK"

claro-cloud

You are now working as Ivan Chavez.

Enterprise Claro Cloud Resource Pool

Change Resource Limits

Your changes will be applied to the subscription #1007409 "US: Resource Pool - Miami - Monthly Payment"

RESOURCE	CURRENT LIMIT	NEW LIMIT	MAX LIMIT	FEE
vCPU		20	1,000 vCPU	\$6.00/vCPU per month
RAM	50 total	50	5,000 GB	\$6.00/GB per month
SSD Premium Storage	200 total	200	50,000 GB	\$0.05/GB per month

CANCEL OK

Important:

- Increased compute resources are possible up to a maximum of 1,000 vCPUs, 5,000 GB of RAM, and 50 TB of storage. If you require more capacity contact your Claro support team.
- It is not possible to decrease the pool of resources to an amount lower than what was contracted. Additional resources can be decreased if they have not been used.
- 1 vCPU is equivalent to 2 GHz
- If your subscription is tied to a 12, 24, or 36 month contracting period, capacity changes are updated in the contracting period.

7. A confirmation screen with the changes and new charges resulting will be displayed, click on "Confirm" if you agree with the amounts. You will receive an email with the requested change order.

Confirm Your Order

After you confirm the order you will be charged using the payment method you have selected below. Changes to your subscription will be applied as soon as we receive your payment.

Order Details

ORDER ITEMS	QTY/PERIOD	ITEM TOTAL
vCPU Recurring	2 vCPU/0.13 month(s)	\$1.56
RAM Recurring	2 GB/0.13 month(s)	\$1.56
Storage Policy - Default Recurring	2 GB/0.13 month(s)	\$0.01

Total: \$3.13
Tax Total: \$0.00
Order Total: \$3.13

Payment Information

☐ Pay Using Available Credit (\$737.60)

Claro Invoice will be used for the payment of \$3.13.


CANCEL CONFIRM



Claro Cloud USA

<cloudinfo@usclaro.com>

para mí



Order Notification No.

UG000076

Below are your current account details including the most recent updates and changes.

<div>Account Details</div> <div> <div>Ivan Chavez Garcia</div> <div>CES AMX</div> <div>3350 SW 148th, Ave #400,</div> <div>Miramar FL 33027, United States of America</div> </div>		<div>Detail</div> <div> <div>Order Number: UG000076</div> <div>Order Type: Change Order</div> <div>Order Status: Creating Order Details</div> <div>Order Date: 26-May-2021</div> </div>	
--	--	---	--

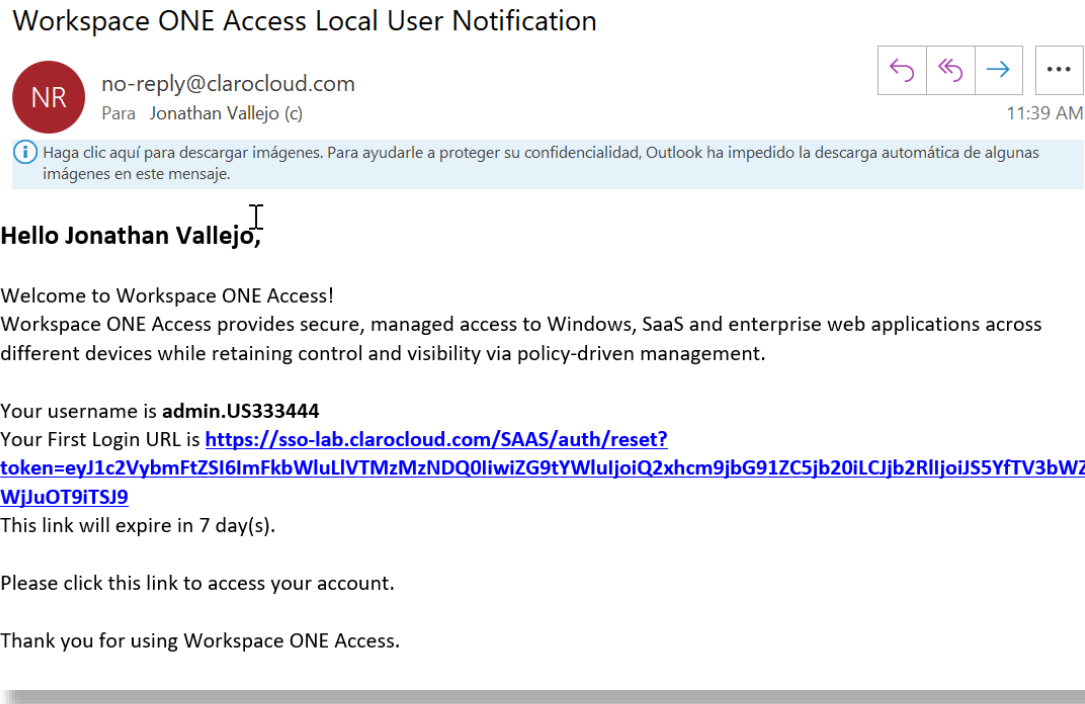
ID	Service Description	Quantity	Unit of Measure	Unit Price	From Date	To Date	Total Amount
1	vCPU Recurring	20	vCPU	10.00	26-May-2021	31-May-2021	USD 33.34
2	RAM Recurring	20	GB	7.00	26-May-2021	31-May-2021	USD 23.34
3	Storage Policy - Default Recurring	200	GB	0.07	26-May-2021	31-May-2021	USD 2.33
<div>Estimated tax to be collected:</div>							<div>USD 0.00</div> <div>USD 59.01</div>

- Within two to three minutes the capacity of your data center will be updated with the requested resources.

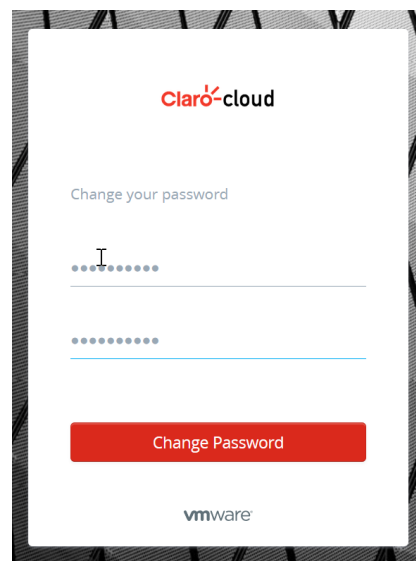
3. How to use the Claro Cloud portal

Access to the Enterprise Claro Cloud portal

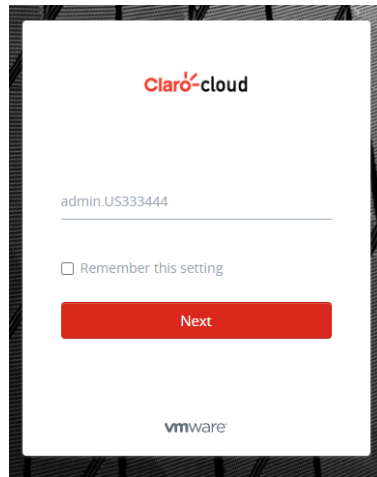
At the end of the purchase process you will receive an e-mail with the information necessary access to your service. As shown in the following image



1. Utilizing the web browser of your preference, enter the URL provided in the e-mail. The following interface will be displayed where you will set your password. When finished, click on the "Change Password" button

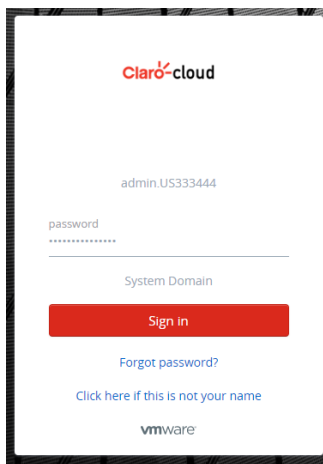


2. Enter your username, which you will find in the body of the e-mail previously received



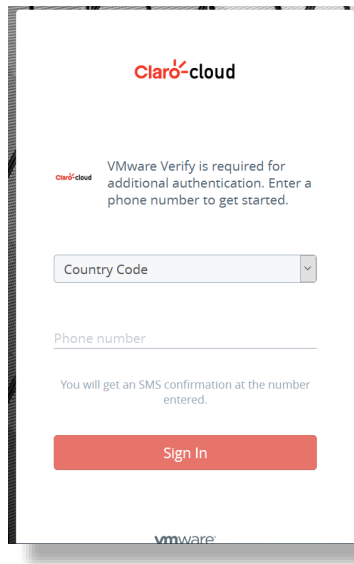
The image shows a login screen for ClaroCloud. At the top is the ClaroCloud logo. Below it is a text input field containing the username "admin.US333444". Underneath the input field is a checkbox labeled "Remember this setting". A red button with the text "Next" is positioned below the checkbox. At the bottom of the screen is the VMware logo.

3. Enter the previously defined password

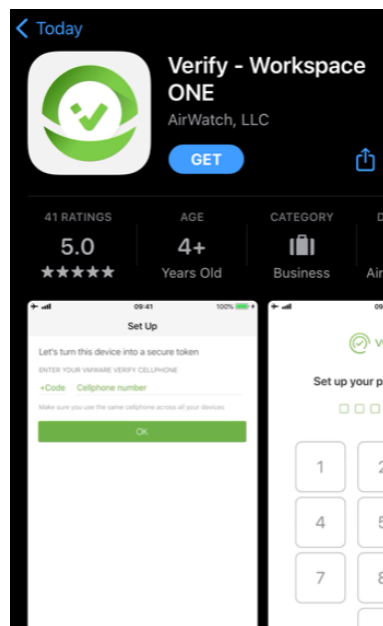


The image shows the same login screen as before, but now with a password input field. The username "admin.US333444" remains in the first field. The second field is labeled "password" and contains a series of dots. Below the password field is a "System Domain" label. A red button with the text "Sign in" is located below the System Domain label. Below the "Sign in" button are two links: "Forgot password?" and "Click here if this is not your name". The VMware logo is at the bottom.

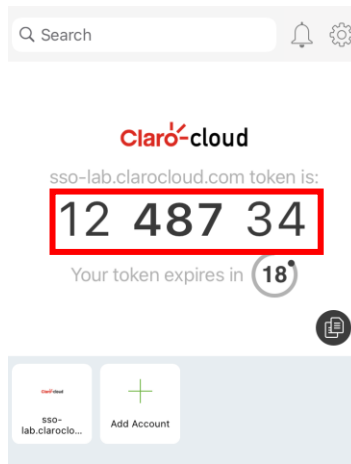
4. Enter a phone number and country code, This is required to be able to send download information in order to activate the two-factor authentication



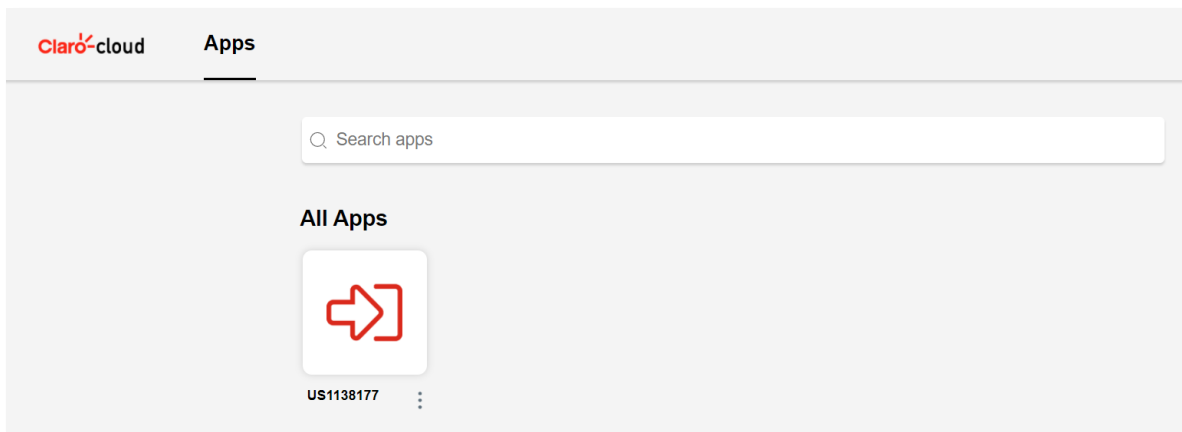
5. Via text message you will receive a link to download the mobile application that is utilized to generate an access validation token for your account.
6. Click on the download URL indicated in the text message which will redirect you to your mobile application store (Google Play / Apple App Store)
7. Click to download "Verify – Workspace ONE"



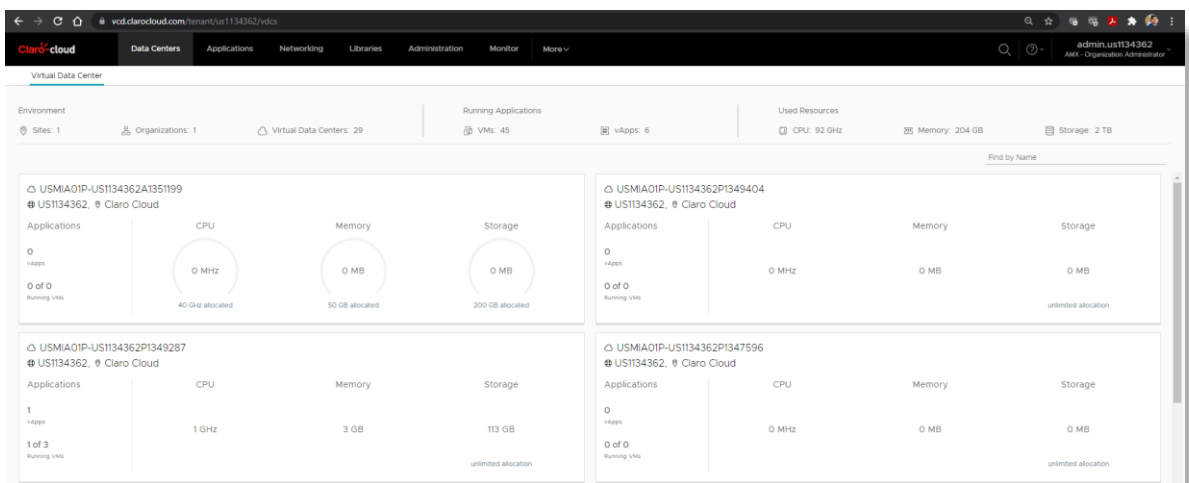
8. After downloading, click open, enter the PIN provided in the second text message.
9. Your mobile token will automatically be linked with the information in your Enterprise Claro Cloud account.



10. In your web browser the following screen will open automatically



11. Click on the icon to enter your Enterprise Claro Cloud dashboard where you can manage your cloud services. The following screen will open



12. After this initial setup you will access your Enterprise Claro Cloud dashboard via the following URL: <https://sso.clarocloud.com/SAAS/auth/login>

4. Introducing Enterprise Claro Cloud

Enterprise Claro Cloud is an efficient and flexible public cloud technology based on VMware services with components such as vCloud Director, NSX, AVI, CSE among others. In the following chapters you will find the necessary processes for the management of the different services.

In the Enterprise Claro Cloud control panel you can find multiple menus that will help you with the creation, administration, monitoring, and management of your services.

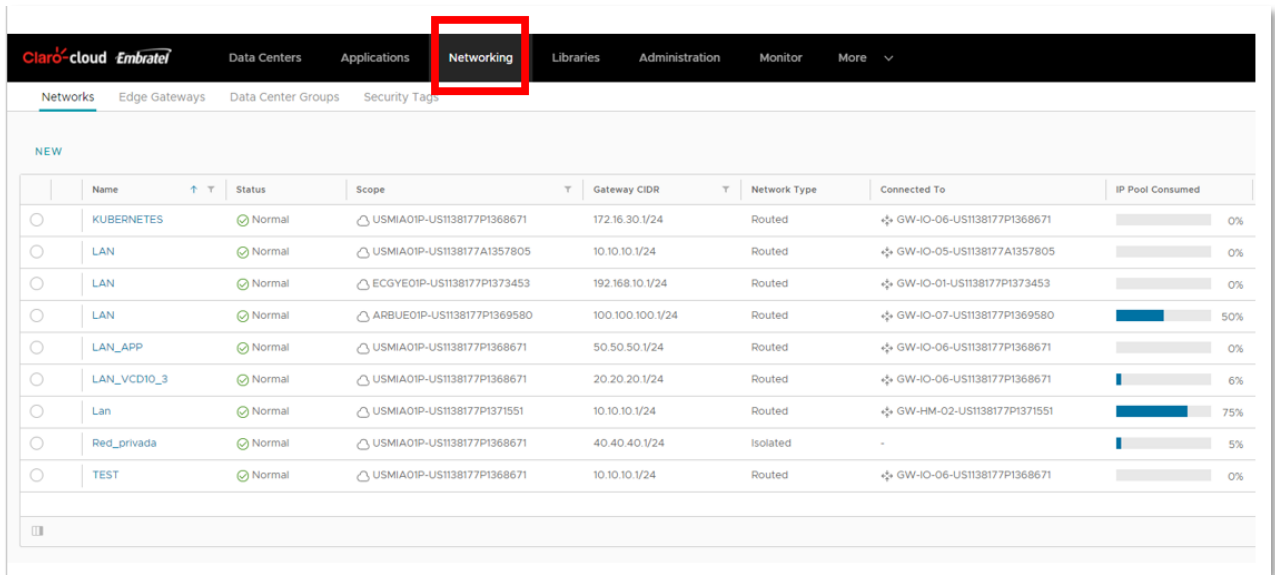
Listed below are the different sections that you will have in your admin panel:

Main menu options	Description
Data Center	Distribution of data centers deployed in the different regions of Claro Cloud
Applications	Visualization and management of virtual applications, Virtual Machines and Scale Groups
Networks	Management of T1 Edge Gateway instances, virtual networks, VPN connections, NAT, DHCP, LB, etc.
Library	Viewing and managing public and private catalogs, installation media (.ISO images) and deployment of point workloads
Administration	Managing users, roles, groups, and certificates
Supervise	Visualization of logs related to events and tasks performed on the platform
App Launchpad	Application Catalog for creating virtual machines in your Virtual Data Center
Kubernetes Container Cluster	Managing and creating Kubernetes clusters based on virtual machines
Autoscale	In this section you will find the management of the scale-up rules for your applications and virtual machines
Operations Manager	Visualization of health dashboards and monthly consumption reports in your data centers
Availability	Manage and execute workload migrations to different compute regions available in Claro Cloud through the vCloud Availability solution
Guided Tours	Short capsules of most frequent and common operations on the Enterprise Claro Cloud dashboard

5. Network Configuration in Enterprise Claro Cloud

This section will show the steps necessary to be able to configure all the network services available in Enterprise Claro Cloud, taking into account the T1 Edge Gateway service as the main element.

To be able to access the general network administration panel click on the top menu to the "Networks" option.



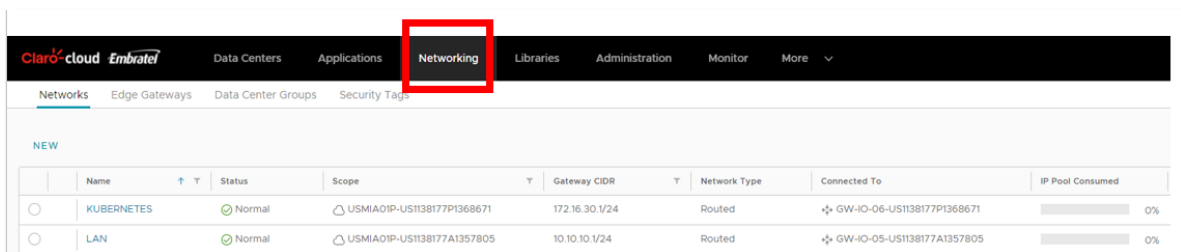
	Name	Status	Scope	Gateway CIDR	Network Type	Connected To	IP Pool Consumed
<input type="radio"/>	KUBERNETES	Normal	USMIA01P-US1138177P1368671	172.16.30.1/24	Routed	GW-IO-06-US1138177P1368671	0%
<input type="radio"/>	LAN	Normal	USMIA01P-US1138177A1357805	10.10.10.1/24	Routed	GW-IO-05-US1138177A1357805	0%
<input type="radio"/>	LAN	Normal	ECGYE01P-US1138177P1373453	192.168.10.1/24	Routed	GW-IO-01-US1138177P1373453	0%
<input type="radio"/>	LAN	Normal	ARBUE01P-US1138177P1369580	100.100.100.1/24	Routed	GW-IO-07-US1138177P1369580	50%
<input type="radio"/>	LAN_APP	Normal	USMIA01P-US1138177P1368671	50.50.50.1/24	Routed	GW-IO-06-US1138177P1368671	0%
<input type="radio"/>	LAN_VCD10_3	Normal	USMIA01P-US1138177P1368671	20.20.20.1/24	Routed	GW-IO-06-US1138177P1368671	6%
<input type="radio"/>	Lan	Normal	USMIA01P-US1138177P1371551	10.10.10.1/24	Routed	GW-HM-02-US1138177P1371551	75%
<input type="radio"/>	Red_privada	Normal	USMIA01P-US1138177P1368671	40.40.40.1/24	Isolated	-	5%
<input type="radio"/>	TEST	Normal	USMIA01P-US1138177P1368671	10.10.10.1/24	Routed	GW-IO-06-US1138177P1368671	0%

Note: We recommend that you configure at least one routed network before creating Kubernetes virtual machines or clusters. For Edge instances that are generated during the default purchase process, they have the first routed network configured.

Creating a network in Enterprise Claro Cloud

Process for creating a new network in your Virtual Data Center

1. Enter in the top menu to the Networks section, select in the submenu the Networks section



	Name	Status	Scope	Gateway CIDR	Network Type	Connected To	IP Pool Consumed
<input type="radio"/>	KUBERNETES	Normal	USMIA01P-US1138177P1368671	172.16.30.1/24	Routed	GW-IO-06-US1138177P1368671	0%
<input type="radio"/>	LAN	Normal	USMIA01P-US1138177A1357805	10.10.10.1/24	Routed	GW-IO-05-US1138177A1357805	0%

2. Click "New"

<div> <div> <div>Clarifai cloud</div> <div>Embratel</div> </div> <div> <div>Data Centers</div> <div>Applications</div> <div>Networking</div> <div>Libraries</div> <div>Administration</div> <div>Monitor</div> <div>More</div> </div> </div>									
<div> <div>Networks</div> <div>Edge Gateways</div> <div>Data Center Groups</div> <div>Security Tags</div> </div>									
<div> <div>NEW</div> </div>									
	Name	Status	Scope	Gateway CIDR	Network Type	Connected To	IP Pool Consumed		
<input type="radio"/>	KUBERNETES	Normal	USMIA01P-US1138177P1368671	172.16.30.1/24	Routed	GW-IO-06-US1138177P1368671	0%		
<input type="radio"/>	LAN	Normal	USMIA01P-US1138177A1357805	10.10.10.1/24	Routed	GW-IO-05-US1138177A1357805	0%		
<input type="radio"/>	LAN	Normal	ECGYE01P-US1138177P1373453	192.168.10.1/24	Routed	GW-IO-01-US1138177P1373453	0%		

3. The following screen will be displayed

New Organization VDC Network

1 Scope

2 Network Type

3 General

4 Static IP Pools

5 DNS

6 Ready to Complete

Scope

☒ Organization Virtual Data Center

Provides connectivity for VMs in the selected VDC only

☐ Data Center Group

Provides connectivity for VMs from all VDCs participating in the Data Center Group

	Name	Allocation Model	Organization
<input type="radio"/>	ARBUE01P-US1138177P1369580	Flex	US1138177
<input type="radio"/>	USMIA01P-US1138177P1368671	Flex	US1138177
<input type="radio"/>	USMIA01P-US1138177P1371551	Flex	US1138177

1 - 3 of 3 data center(s)

CANCEL

NEXT

4. Choose the network range type and select the Virtual Data Center to which the network will be linked, then click Next.

Scope Type	Description
Organization Virtual Data Center	Provides connectivity only for virtual machines in a single Virtual Data Center
Data Center Group	Provides connectivity to virtual machines that are part of a Virtual Data Center group

New Organization VDC Network

1 Scope
2 Network Type
3 Edge Connection
4 General
5 Static IP Pools
6 DNS
7 Ready to Complete

Scope

☒ Organization Virtual Data Center
Provides connectivity for VMs in the selected VDC only

☐ Data Center Group
Provides connectivity for VMs from all VDCs participating in the Data Center Group

	Name	Allocation Model	Organization
<input type="radio"/>	ARBUE01P-US1138177P1369580	Flex	US1138177
<input checked="" type="radio"/>	USMIA01P-US1138177P1368671	Flex	US1138177
<input type="radio"/>	USMIA01P-US1138177P1371551	Flex	US1138177

5. Choose the type of network you want to create

New Organization VDC Network

1 Scope
2 Network Type
3 Edge Connection
4 General

Network Type

Select the type of network that you are about to create

☒ Routed
This type of network provides controlled access to machines and networks outside of the VDC or VDC Group through an edge gateway.

☐ Isolated
This type of network provides a fully isolated environment, which is accessible only by this organization VDC or VDC Group.

Network Type	Description
Isolated	Provides a fully isolated environment, to which only virtual machines can communicate within a Virtual Data Center or Virtual Data Center Group
Routed	Provides controlled virtual machine access to networks outside the Virtual Data Center or Virtual Data Center Group

Note: If the Routed option is selected, an additional step will be displayed regarding the Edge connection

6. (For routed networks only), select the Edge Gateway where you want to host the network, click next

New Organization VDC Network

- Scope
- Network Type
- Edge Connection
- General
- Static IP Pools
- DNS
- Ready to Complete

Edge Connection

Name	External Networks	Org VDC Networks
GW-IO-06-US1138177P1368671	1	4

1 - 1 of 1 Edge Gateway(s)

Distributed Routing ☐ ⓘ

Guest VLAN Allowed ☐

CANCEL
PREVIOUS
NEXT

7. Set the following parameters then click next

Item	Description
Name	Name of the network to be assigned, field without character restriction
Gateway CIDR	Private IP address to be assigned as network gateway
Description (optional)	It is recommended to fill in this field for documentation and network administration purposes

New Organization VDC Network

- Scope
- Network Type
- Edge Connection
- General
- Static IP Pools
- DNS
- Ready to Complete

General

Name * ⓘ

Description

Dual-Stack Mode ☐ ⓘ

Gateway CIDR * ⓘ

Shared ☐ ⓘ

CANCEL
PREVIOUS
NEXT

8. Add the private IP segment that you want to enable on the network, this segment needs to be compatible with the Gateway defined in the previous step. When finished click next

Important: The gateway CIDR field is set by default with the information from the previous step.

The screenshot shows the 'Static IP Pools' configuration page. On the left, a sidebar lists the steps: 1 Scope, 2 Network Type, 3 Edge Connection, 4 General, 5 Static IP Pools (highlighted), 6 DNS, and 7 Ready to Complete. The main area is titled 'Static IP Pools'. It shows 'Gateway CIDR' as '192.168.1.1/32' with an information icon. Below, it says 'Static IP Pools' and 'Enter an IP range (format: 192.168.1.2 - 192.168.1.100)'. There is a large empty text box for input. To the right of the text box are three buttons: 'ADD', 'MODIFY', and 'REMOVE'. At the bottom left of the main area, it says 'Total IP addresses: 0'. At the bottom right, there are three buttons: 'CANCEL', 'PREVIOUS', and 'NEXT'.

9. Enter the information regarding your DNS. If you do not have one you can use 8.8.8.8 / 8.8.4.4.

Important: If your network is intended for private access, you must use private DNS instead of public DNS

The screenshot shows the 'DNS' configuration page. On the left, a sidebar lists the steps: 1 Scope, 2 Network Type, 3 Edge Connection, 4 General, 5 Static IP Pools, 6 DNS (highlighted), and 7 Ready to Complete. The main area is titled 'DNS'. It has three input fields: 'Primary DNS', 'Secondary DNS', and 'DNS suffix'. At the bottom right, there are three buttons: 'CANCEL', 'PREVIOUS', and 'NEXT'.

10. The summary of the network configuration will be displayed, click on finish

New Organization VDC Network

1 Scope

2 Network Type

3 Edge Connection

4 General

5 Static IP Pools

6 DNS

7 Ready to Complete

Ready to Complete

Scope

Site	Claro Cloud
Scope	USMIAO1P-US1138177P1368671

General

Name	adada
Description	-
Network Type	Routed
Connection	GW-IO-06-US1138177P1368671
Distributed Routing	Active
Guest VLAN Allowed	No

Gateway CIDR

Dual-Stack Mode	No
Gateway CIDR	192.168.1/32

CANCEL

PREVIOUS

FINISH

Configuring an Edge Gateway

During the purchase process of your first Data Center in Enterprise Claro Cloud, an Edge Gateway is added by default and at no cost

Note: If you require an additional T1 Edge Gateway, you can purchase it for an additional fee. If you have Virtual Data Center in different Enterprise Claro Cloud regions, you will need to have at least one T1 Edge Gateway per region

The processes will be able to configure each available network services listed below:

- Firewall
- NAT
- VPN IPSec
- Load Balancer
- Safety
- IP Address Management
- Routing

To access the network services management panel, follow these steps:

1. Enter in the top menu to the Networks section, then in the submenu select Edge Gateways

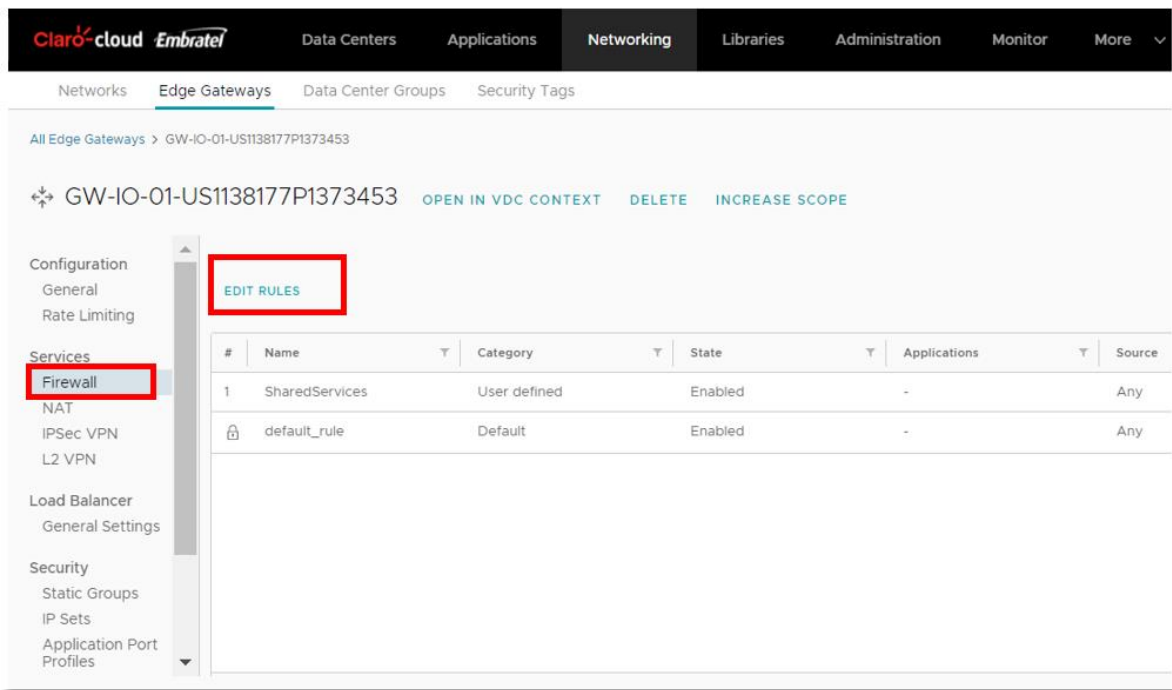
	Name	Status	Scope	Distributed Routing	Used NICs	External Networks
<input type="radio"/>	GW-HM-02-US1138177P1371551	Normal	USMIA01P-US1138177P1371551	Enabled	2	1
<input type="radio"/>	GW-IO-01-US1138177P1373453	Normal	ECGYE01P-US1138177P1373453	Enabled	2	1
<input type="radio"/>	GW-IO-05-US1138177A1357805	Normal	USMIA01P-US1138177A1357805	Enabled	2	1

2. Select the Edge Gateway to configure

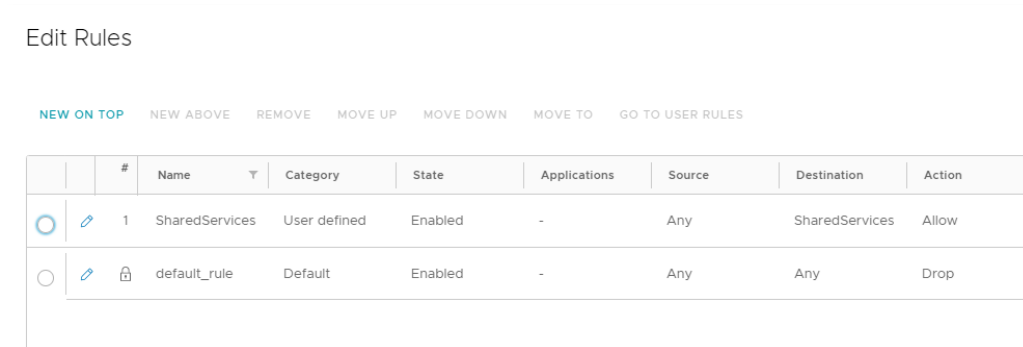
	Name	Status	Scope	Distributed Routing	Used NICs
<input type="radio"/>	GW-HM-02-US1138177P1371551	Normal	USMIA01P-US1138177P1371551	Enabled	2
<input checked="" type="radio"/>	GW-IO-01-US1138177P1373453	Normal	ECGYE01P-US1138177P1373453	Enabled	2
<input type="radio"/>	GW-IO-05-US1138177A1357805	Normal	USMIA01P-US1138177A1357805	Enabled	2
<input type="radio"/>	GW-IO-06-US1138177P1368671	Normal	USMIA01P-US1138177P1368671	Enabled	5

Important: In the Scope column, you can see which Virtual Data Center or Group each Edge Gateway is linked to

3. The following screen will be displayed which is the interface where you can configure your network services

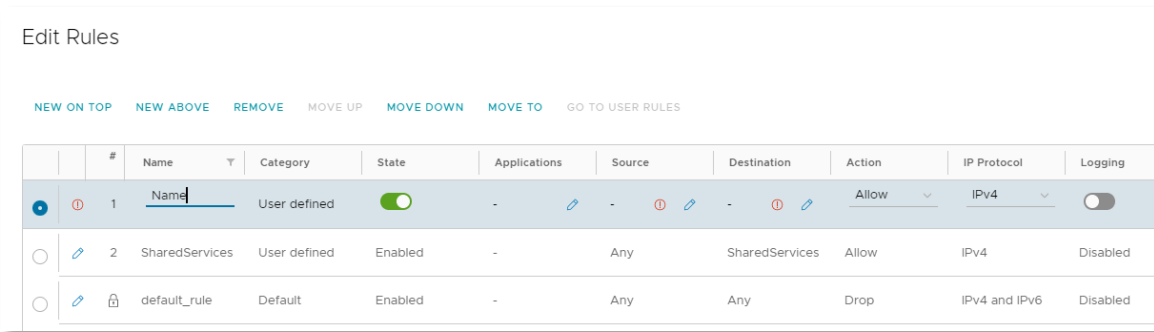


2. The following screen will be displayed, where you must click on the "New On Top" button



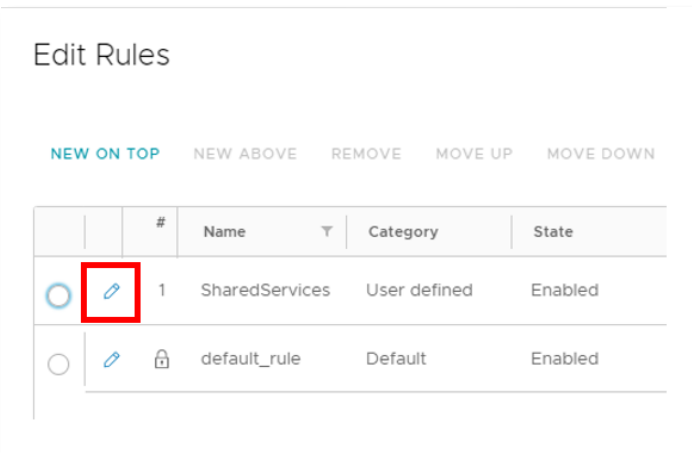
3. A line will be added in the table, where you will need to enter the following information. When finished, click the save button

Item	Description
Number	Firewall rule name
State	Enabled Disabled
Applications	TCP/UDP access ports
Origin	Source IP segment
Destiny	Source IP segment
Action	Allow / Block / Deny
Protocol	Protocol used for IPv4 / IPv6 communication

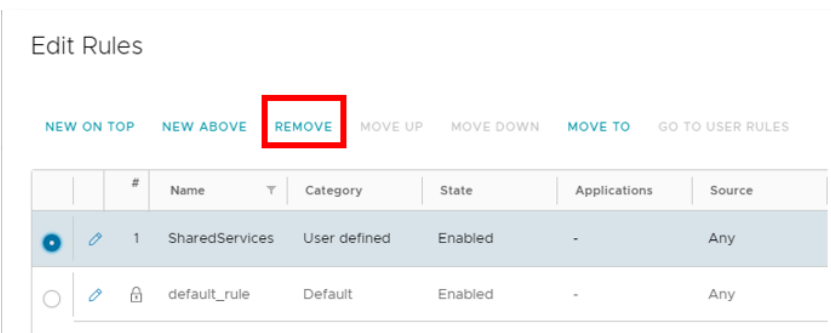


Process for Editing or Deleting Firewall Rules

- To edit a rule click the pencil button, then click save button when finished



- To delete a firewall rule, select the rule and click Remove, then click on save button.



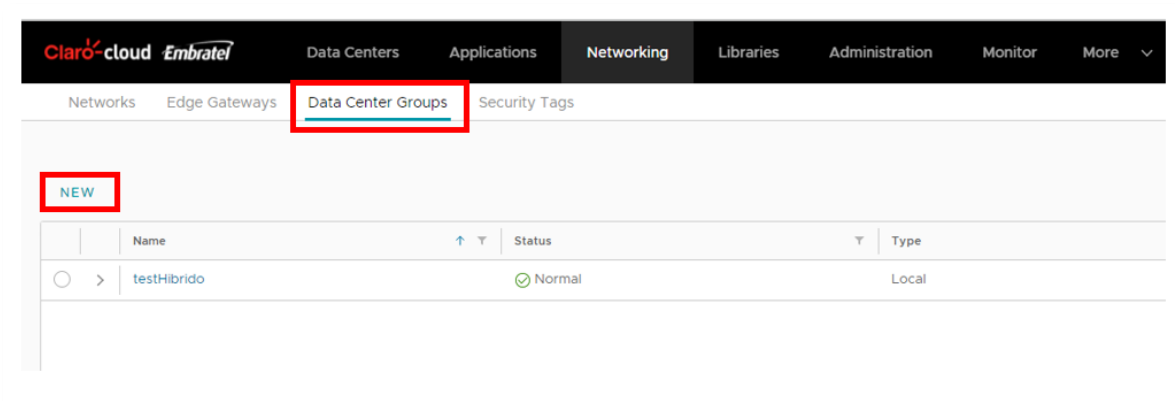
Enabling and Configuring Distributed Firewall

In this section you can activate and configure your Distributed Firewall.

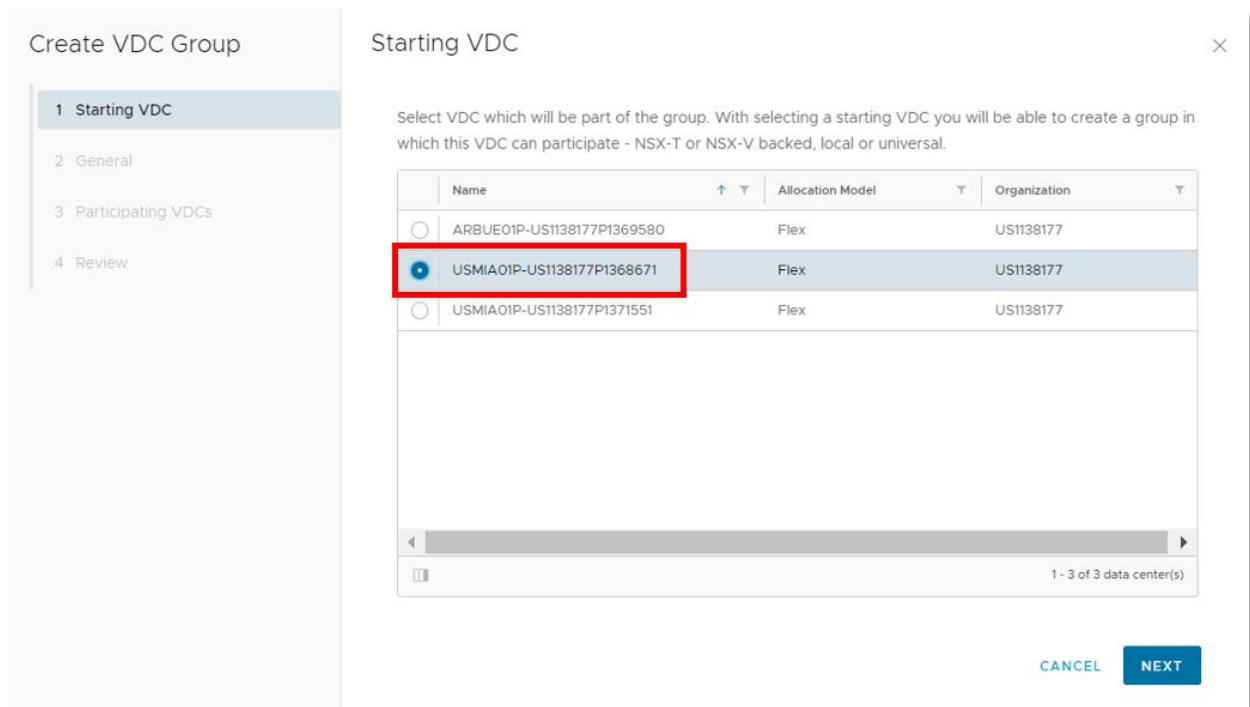
Within the available functionalities of Enterprise Claro Cloud, you will be able to communicate through extended networks with multiple data centers in the same region, these communications can be managed and segmented through a Distributed Firewall.

Before you can activate the Distributed Firewall service, you must create a Data Center group with the following process.

1. Enter in the top menu to the Networks section, in the submenu select Data Center Groups, click on "New"



2. The following screen will be displayed where you must select the initial Data Center, it is advisable to select a Data Center that has an Edge instance assigned to allow connections to the outside (Internet or MPLS), if required. Click "Next"



3. Enter the name and optionally a description, when finished click on "Next"

Create VDC Group

- Starting VDC
- General**
- Participating VDCs
- Review

General

Name *

Test

Description

CANCEL

BACK

NEXT

- Select the Data Centers that will be added to the group, by default the Data Center indicated in step 2 will be preselected, when finished click on "Next"

Create VDC Group

- Starting VDC
- General
- Participating VDCs**
- Review

Participating VDCs

Select additional VDCs to be part of the group.

☐ Show selected

<input type="checkbox"/>	Name	Fault Domain	Organization
<input type="checkbox"/>	USMIA01P-US1138177P1371551	USMIA01P	US1138177
<input checked="" type="checkbox"/>	USMIA01P-US1138177P1368671	USMIA01P	US1138177
<input checked="" type="checkbox"/>	USMIA01P-US1138177A1357805	USMIA01P	US1138177

☒ 2

1 - 3 of 3 eligible VDCs

CANCEL

BACK

NEXT

- A summary with the defined group configuration will be displayed, click "Finish" to start the creation of the Group. Upon end of group creation, you will be able to view your group in the Data Center Groups section.

Create VDC Group

- Starting VDC
- General
- Participating VDCs
- Review**

Review

General

Name	Test
Description	-
Group Type	Local

Participating VDCs

USMIA01P

USMIA01P-US1138177P1368671

USMIA01P-US1138177A1357805

CANCEL

BACK

FINISH

- To enable distributed firewall, click the name of the group created.

Claro-cloudEmbratel

Data CentersApplicationsNetworkingLibrariesAdministrationMonitorMore

NetworksEdge GatewaysData Center GroupsSecurity Tags

NEW SYNC DELETE

	Name	↑ ↓	Status	↓	Type
<div><div></div><div>></div></div>	testHibrido		<div><div></div>Normal</div>		Local

- The following screen will be displayed, in General within the line Distributed firewall, click on "Activate"

Claro-cloud Embratel

Data Centers
Applications
Networking
Libraries
Administration
Monitor
More

Networks
Edge Gateways
Data Center Groups
Security Tags

All Data Center Groups > testHibrido

testHibrido
SYNC
DELETE

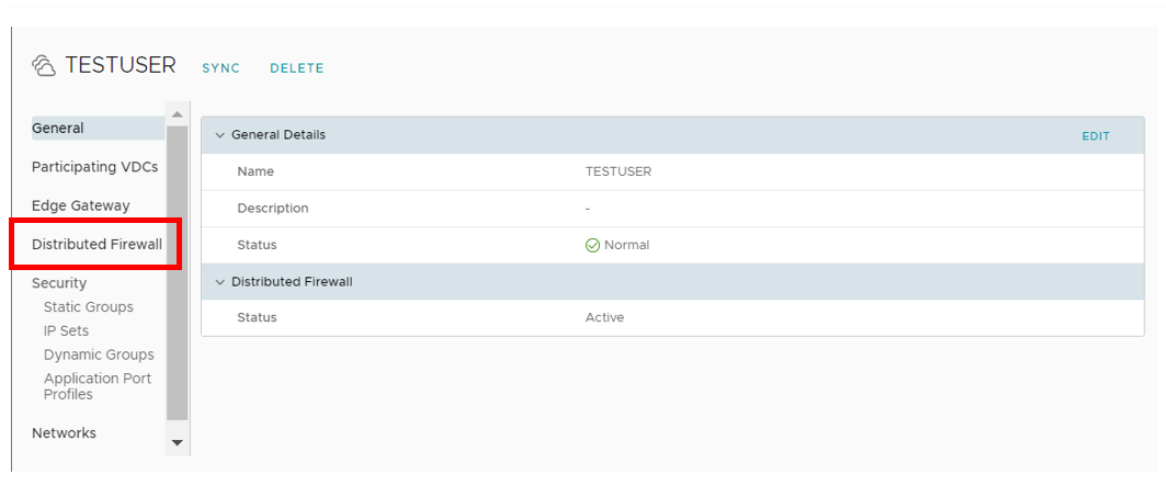
General
Participating VDCs
Edge Gateway
Security
Static Groups
IP Sets
Dynamic Groups
Application Port Profiles
Networks

General Details
EDIT

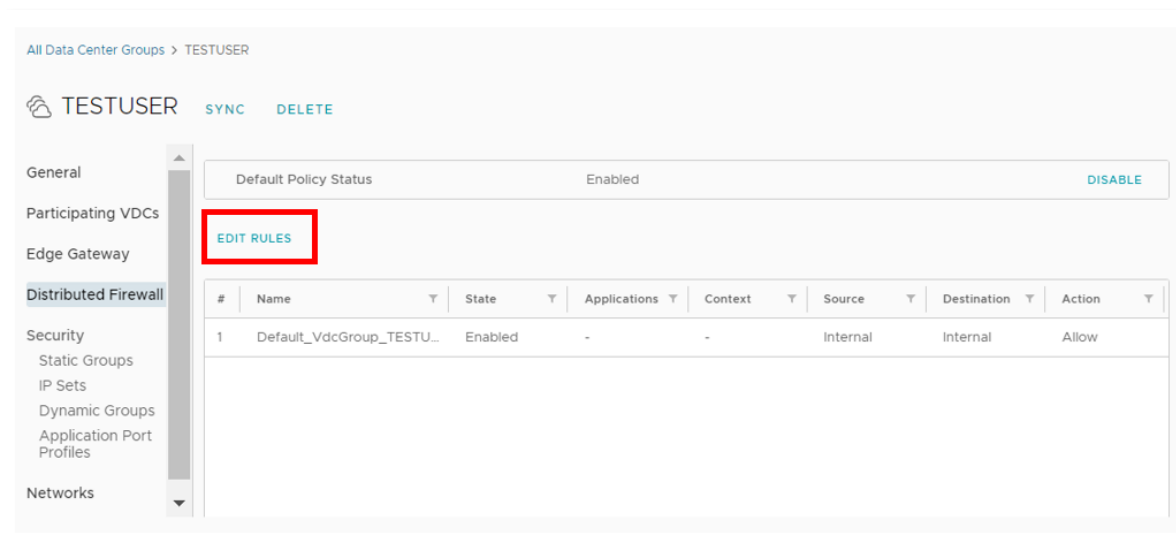
Name	testHibrido
Description	-
Status	Normal
Distributed Firewall	
Status	Inactive

ACTIVATE DISTRIBUTED FIREWALL

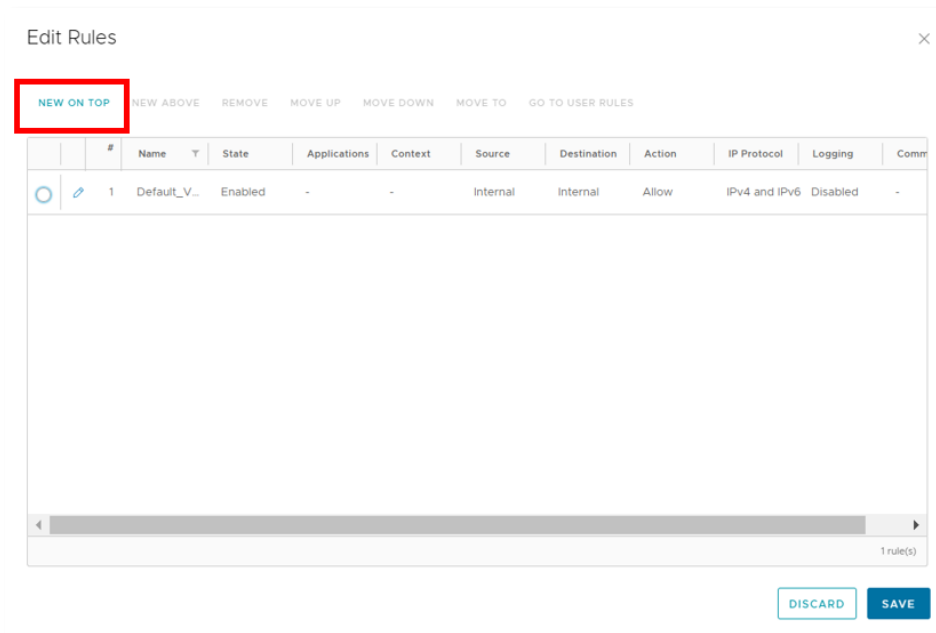
8. A new option will be enabled within the left menu "Distributed Firewall", click on the new option



9. The dashboard for configuring firewall policies is displayed. To create a firewall rule click "Edit Rules"

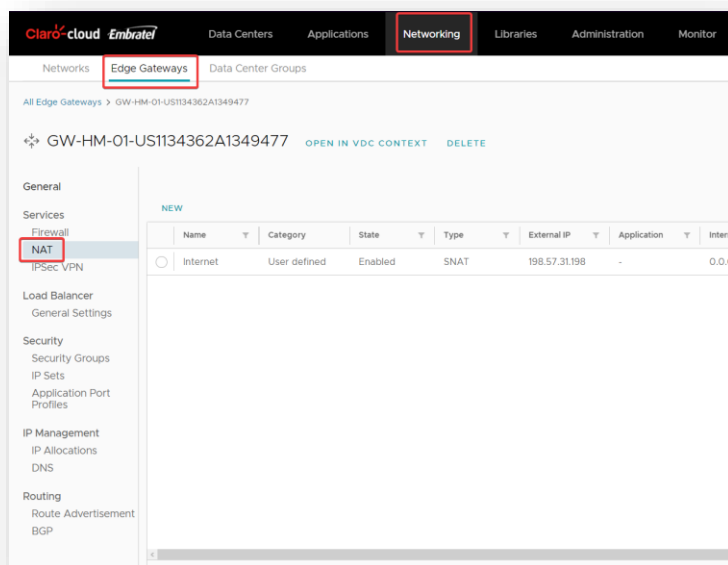


10. The following screen will open, click "New at the top", follow the process described in the chapter "[Configuring Firewall Rules](#)"



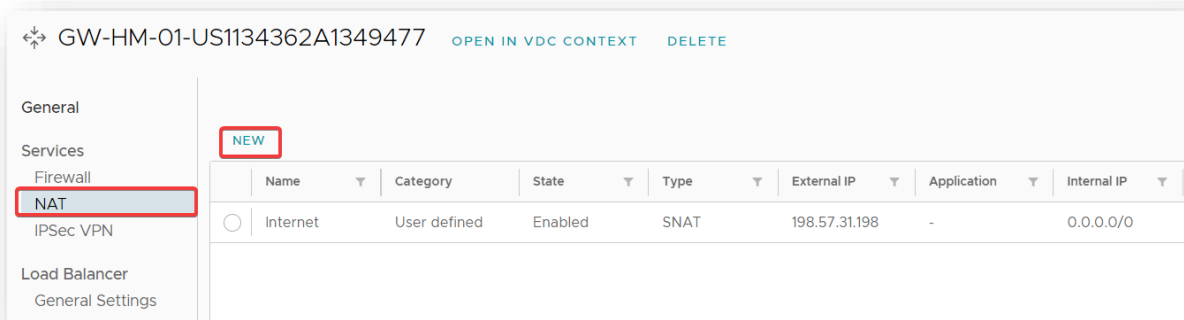
Configuring NAT Rules

In this section, you can configure, edit, and delete NAT rules according to your organization's needs.



To configure a NAT rule, follow the following process

1. Select the NAT option and click the "New" button



- The following screen will be displayed where you will have to enter the following information. At the end of clicking the save button

Item	Description
Name	NAT rule name
Description (Optional)	Description of the NAT rule
Interface Type	Select NAT Type DNAT / SNAT / NO DNAT / NO SNAT
External IP	External IP where NAT will be applied
External port	External source port
Internal IP	IP to where the redirect is made
Application	Port where the service is exposed
Status (Advanced Settings)	Service enabled/disabled
Registration (Advanced Settings)	Events
Priority	NAT rule priority (Lower value higher priority)
Firewall Match	Match Internal Address / Match External Address / Bypass

Edit NAT Rule

×

Name *

Internet

Description

Interface Type *

SNAT

▼

External IP *

198.57.31.198

Translated IP or CIDR ⓘ

Internal IP *

0.0.0.0/0

Source IP or CIDR

Destination IP

▼ ⚙️ Advanced Settings

State

☒

Logging

☐

Priority

0

If an address has multiple NAT rules, the rule with the highest priority is applied. A lower value means a higher precedence for this rule.

Firewall Match

Match Internal Address

▼ ⓘ

DISCARD

SAVE

- To Edit a rule, select the rule to edit and click the Edit button

↔️ GW-HM-01-US1134362A1349477

OPEN IN VDC CONTEXT

DELETE

General

Services

Firewall

NAT

IPSec VPN

Load Balancer

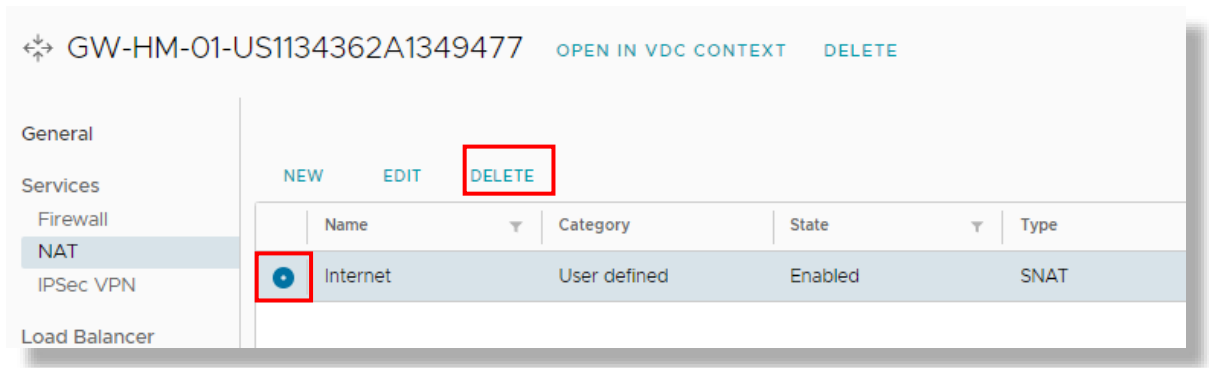
NEW

EDIT

DELETE

	Name	Category	State	Type
<input checked="" type="radio"/>	Internet	User defined	Enabled	SNAT

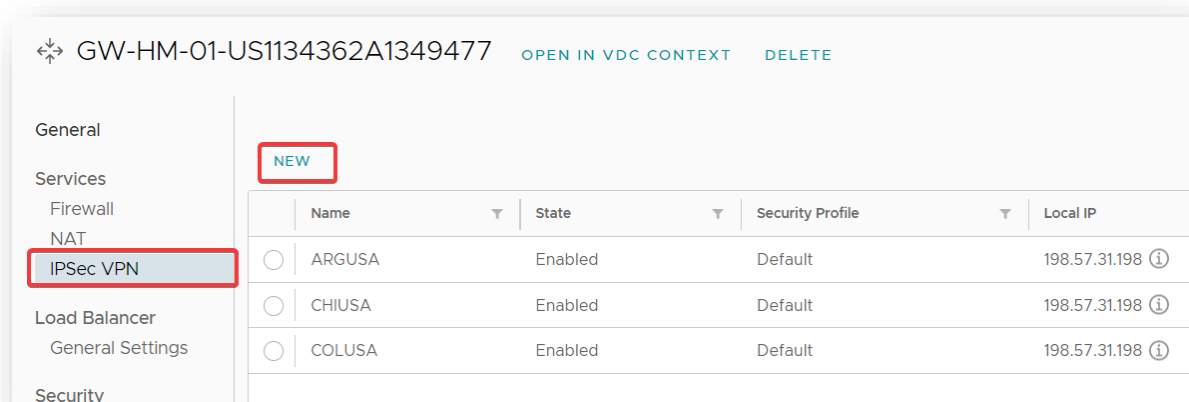
- The screen shown in step 4 will open to edit all previously configured parameters. When finished click save
- To Delete a rule, select the rule and click the Delete button



Configuring IPsec VPN

in this section you will find the procedure to configure an IPsec VPN

1. Within the T1 Edge Gateway panel, select the "IPsec VPN" option and click the "New" button



2. The following screen will be displayed where you will have to enter the following information.
When finished click save

Item	Description
Enabled	Slider button to enable/disable connection
Pre-shared key	Security key, must be shared with the other party to ensure connection settings
Safety Profile	Keep in the standard option
IP Address (Local Endpoint)	Edge Gateway public address
Redes (Endpoint Local)	Local networks which will have access from the VPN connection
IP Address (Remote Endpoint)	Remote Gateway Public Address

Networking (Remote Endpoint)

Remote networks which will have access from the VPN connection

General

Name * ARGUSA

Description

Enabled ☒

Pre-Shared Key *

Security Profile Default

> Profile Details

Local Endpoint

IP Address * 198.57.31.198 ⓘ

Networks * 200.100.50.0/24

Comma separated CIDRs (i.e. 192.168.10.0/24, 212.138.0.0/16)

Remote Endpoint

IP Address * 181.117.6.13

Networks * 192.168.1.0/24, 192.168.10.0/24

DISCARD SAVE

Important: You need to replicate step 1 and 2 to the other end of the VPN connection. Whereas this extreme is now considered the destination

3. To validate the correct VPN configuration select "View statistics"

NEW EDIT VIEW STATISTICS SECURITY PROFILE CUSTOMIZATION DELETE				
	Name	State	Security Profile	Local IP
<input type="radio"/>	ARGUSA	Enabled	Default	198.57.31.198 ⓘ
<input type="radio"/>	CHIUSA	Enabled	Default	198.57.31.198 ⓘ
<input checked="" type="radio"/>	COLUSA	Enabled	Default	198.57.31.198 ⓘ

- The following screen will open where you can view the status of the tunnel as well as the incoming and outgoing byte packets

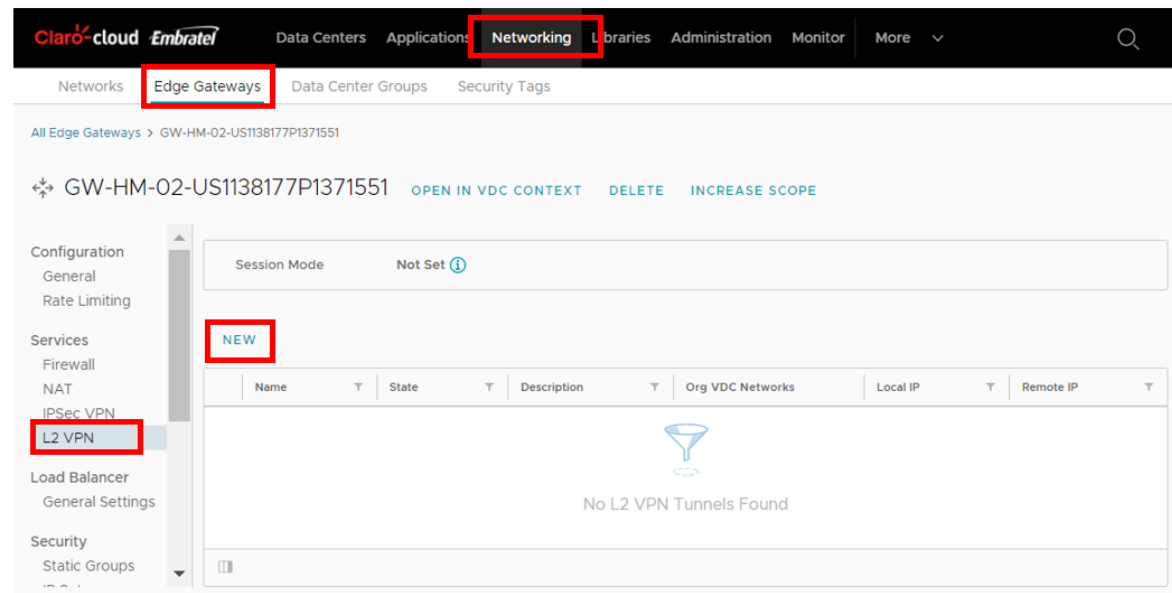
▼ Status		↻
Tunnel Status	Up	
IKE Service Status	Up	
IKE Fail Reason	-	
▼ Traffic & Errors		↻
Local Subnet	200.100.50.0/24	
Peer Subnet	192.168.100.0/24	
Packets In	26	
Packets Out	27	
Bytes In	1560	
Bytes Out	3368	
Packets Sent Error	-	
Packets Received Error	-	
Packets In Dropped	-	
Packets Out Dropped	-	

OK

L2 VPN Configuration

In this section you will find the procedure to set up an L2 VPN from your control panel.

1. Within the T1 Edge Gateway dashboard, select the "L2 VPN" option and click the "New" button



2. The following screen will be displayed, where you must specify the type of session with which you want to configure the T1 Edge Gateway instance, click next.

Session type	Description
Server	In "Server" session mode, the T1 Edge Gateway acts as the server side of the L2 VPN tunnel. Generates peer codes to distribute for client sessions.
Customer	In the "Client" session mode, you must provide the pair code generated from the server side of the L2 VPN tunnel to establish a connection. Only one tunnel can be created on the T1 Edge Gateway.

Important: You will be unable to change the session type of the T1 Edge Gateway after the first VPN tunnel is established

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

Choose Session Mode

×

The session mode - server or client - that you choose for the first L2 VPN tunnel that you create determines the session mode for all other L2 VPN tunnels on the edge gateway.

☒ Server

In Server session mode, the edge gateway acts as the server side of the L2 VPN tunnel. It generates peer codes to distribute for client sessions.

☐ Client

In Client session mode, you need to provide the peer code from the server side of the L2 VPN tunnel to establish a connection. You can create only one tunnel on the edge gateway.

CANCEL

NEXT

Server Mode

3.1.1. The following information must be entered in the General section, at the end click next

Item	Description
Name	Name by which the VPN tunnel will be identified
Description	Optional field, for a brief description
Pre-Shared Key	Secure key with which clients can link to the tunnel
State	Enabled or Disabled

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

General

Session Mode

Server

Name *

Enter name

Description

Enter description

Pre-shared Key *

Enter pre-shared Key

State

☒

CANCEL

PREVIOUS

NEXT

3.1.2. The Endpoint Setup section will be displayed, where the following information must be entered, when finished click on Next

Item	Description
Local IP	Enter the public IP of the T1 Edge Gateway
Tunnel Interface CIDR	Enter the segment to be published inside the VPN tunnel
Remote IP	Enter the public IP of the remote node to connect "Client"
Initiation mode	<p>Select the communication initiation mode from the server to the client, there are 3 options:</p> <ol style="list-style-type: none"> 1. Initiator - The Endpoint initiates tunnel configuration and will also respond to incoming requests from the Edge Gateway. 2. Respond Only - will only respond to incoming tunnel configuration requests, it will not start tunnel configuration. 3. On Demand - will initiate tunnel creation once the first packet matching the policy rule is received and will also respond to incoming startup requests.

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

Endpoint Setup

Local IP *

Enter Local IP Address

Tunnel Interface CIDR

Enter tunnel interface CIDR

Remote IP *

Enter Remote IP Address

Initiation Mode

☒ Initiator
 Local endpoint initiates tunnel setup and will also respond to incoming tunnel setup requests from the peer gateway.

☐ Respond Only
 Local endpoint shall only respond to incoming tunnel setup requests, it shall not initiate the tunnel setup.

☐ On Demand
 In this mode local endpoint will initiate tunnel creation once first packet matching the policy rule is received, and will also respond to incoming initiation requests.

CANCEL

PREVIOUS

NEXT

- 3.1.3. The Org VDC Networks section will be displayed, where the internal networks of the DCV that will allow the client to be published through the VPN tunnel must be selected, at the end click Next.

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

Org VDC Networks

Show selected

<input type="checkbox"/>	Name	Status	Gateway CIDR	Tunnel ID
<input type="checkbox"/>	Lan	Normal	10.10.10.1/24	-

1 - 1 of 1 network(s)

CANCEL

PREVIOUS

NEXT

- 3.1.4. A summary with the configuration made will be displayed, click Finish

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

Ready to Complete

General

Session Mode	Server
Name	test
Description	test
Pre-shared Key	*****
State	Enabled

Endpoint Setup

Local IP	20.20.20.20
Tunnel Interface CIDR	20.20.20.1/24
Remote IP	20.20.20.20
Initiation Mode	Initiator

Org VDC Networks

CANCEL

PREVIOUS

FINISH

- 3.1.5. Once the provisioning of the link is finished, the peer code can be generated, which the client requires to establish communication, select the link and click on the "Copy Peer Code" button

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Data CentersApplicationsNetworkingLibrariesAdministration

NetworksEdge GatewaysData Center GroupsSecurity Tags

All Edge Gateways > GW-IO-06-US1138177P1368671

GW-IO-06-US1138177P1368671

OPEN IN VDC CONTEXTDELETEINCREASE SCOPE

Configuration

General

Rate Limiting

Services

Firewall

NAT

IPSec VPN

L2 VPN

Load Balancer

General Settings

Service Engine Groups

Session Mode

Server

NEW

EDIT

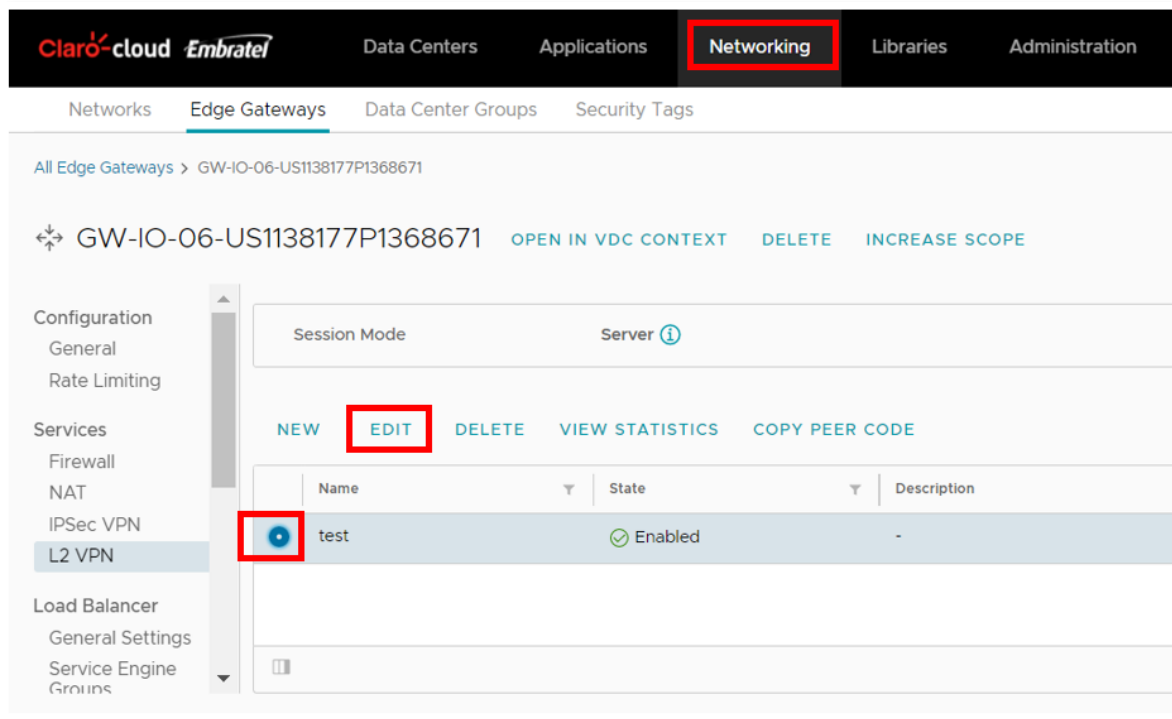
DELETE

VIEW STATISTICS

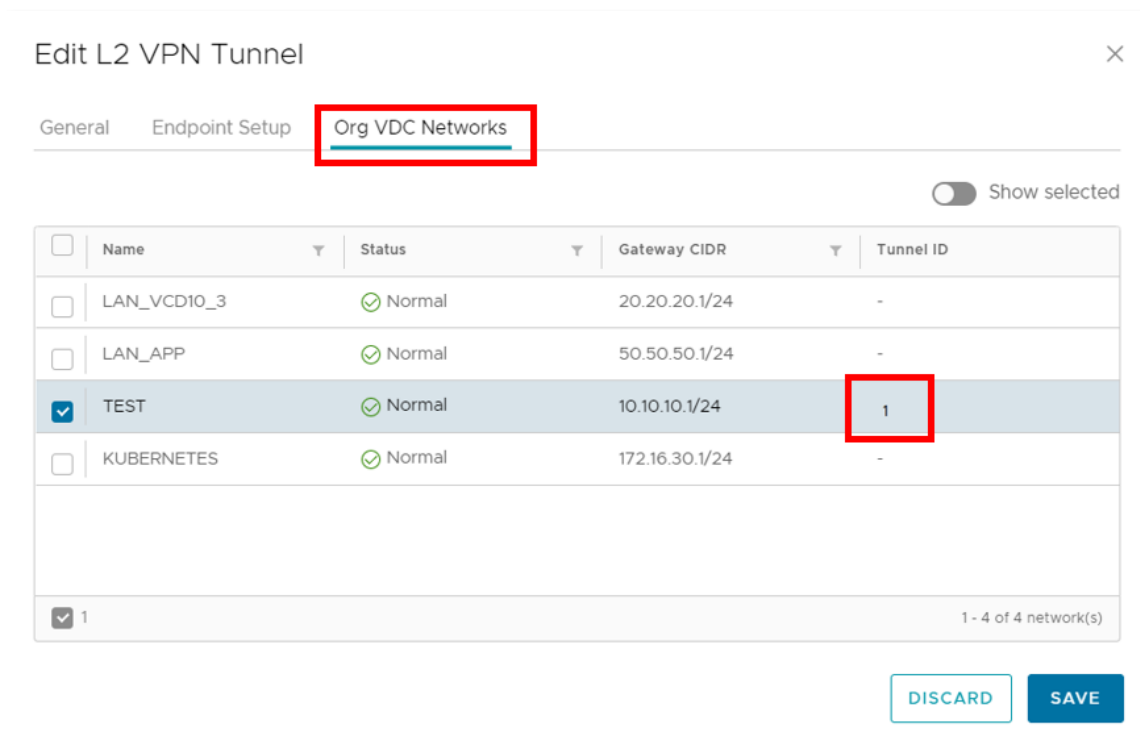
COPY PEER CODE

Name	State	Description
test	Enabled	-

- 3.1.6. To display the Tunnel ID parameter simply click on "Edit"



The following screen will open, select the Org VDC Networks option and copy the Tunnel ID parameter



Client Mode

3.2.1. The following information must be entered in the General section, at the end click on next

Item	Description
Name	Name by which the VPN tunnel will be identified
Description	Optional field, for a brief description
Peer Code	This parameter must be shared by the server (see step 3.1.5 of a server mode configuration)
State	Enabled or Disabled

L2 VPN Tunnel

- 1 Choose Session Mode
- 2 General
- 3 Endpoint Setup
- 4 Org VDC Networks
- 5 Ready to Complete

Choose Session Mode

The session mode - server or client - that you choose for the first L2 VPN tunnel that you create determines the session mode for all other L2 VPN tunnels on the edge gateway.

☐ Server
In Server session mode, the edge gateway acts as the server side of the L2 VPN tunnel. It generates peer codes to distribute for client sessions.

☒ Client
In Client session mode, you need to provide the peer code from the server side of the L2 VPN tunnel to establish a connection. You can create only one tunnel on the edge gateway.

CANCEL NEXT

L2 VPN Tunnel

- 1 Choose Session Mode
- 2 General
- 3 Endpoint Setup
- 4 Org VDC Networks
- 5 Ready to Complete

General

Session Mode: Client

Name *

Description

Peer Code *

Paste the corresponding peer code from the L2VPN Server tunnel you wish to connect to.

State ☒

CANCEL PREVIOUS NEXT

3.2.2. The Endpoint Setup section will be displayed, where the following information must be entered, at the end click Next

Item	Description
------	-------------

Local IP	Enter the public IP of the T1 Edge Gateway
Remote IP	Enter the public IP of the remote node to connect "Server"

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

Endpoint Setup

Local IP *

181.117.6.80

Remote IP *

198.57.31.134

CANCEL

PREVIOUS

NEXT

3.2.3. The Org VDC Networks section will be displayed, where the internal networks of the DCV that will allow the client to be published through the VPN tunnel must be selected, it is required to indicate the Tunnel ID, this parameter must be specified by the Server (see step 3.1.6), at the end click Next

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

Org VDC Networks

Show selected

<input checked="" type="checkbox"/>	Name	Status	Gateway CIDR	Tunnel ID
<input checked="" type="checkbox"/>	Internet	Normal	50.50.50.1/24	1

☒ 1
 1 - 1 of 1 network(s)

CANCEL

PREVIOUS

NEXT

3.2.4. A summary with the configuration made will be displayed, click Finish

L2 VPN Tunnel

1 Choose Session Mode

2 General

3 Endpoint Setup

4 Org VDC Networks

5 Ready to Complete

Ready to Complete

General

Session Mode	Client
Name	test
Description	-
Peer Code	test
State	Enabled

Endpoint Setup

Local IP	181.117.6.80
Remote IP	198.57.31.134

Org VDC Networks

Org VDC Networks	Internet
------------------	----------

CANCEL

PREVIOUS

FINISH

4. Once the Edge Gateway has been configured in "Server" and "Client" mode, you can validate the status of the link by clicking on the View Statistics button

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Data CentersApplicationsNetworkingLibrariesAdministration

NetworksEdge GatewaysData Center GroupsSecurity Tags

All Edge Gateways > GW-IO-06-US1138177P1368671

GW-IO-06-US1138177P1368671

OPEN IN VDC CONTEXTDELETEINCREASE SCOPE

Configuration

General

Rate Limiting

Services

Firewall

NAT

IPSec VPN

L2 VPN

Load Balancer

General Settings

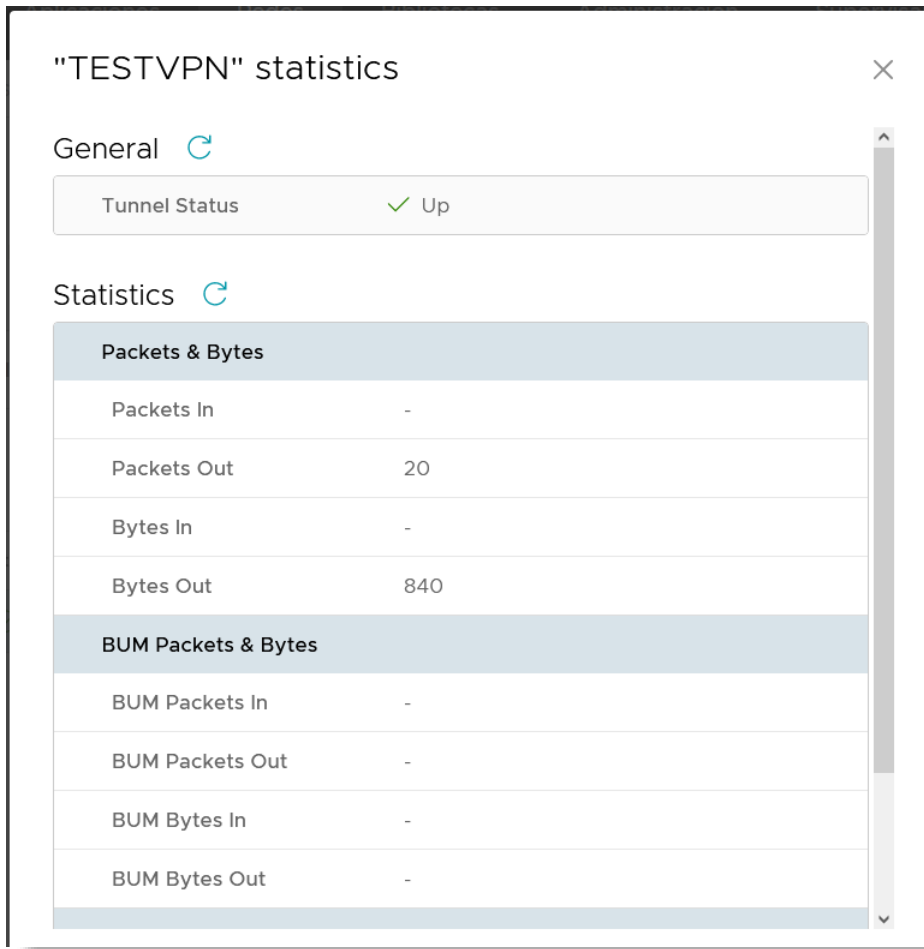
Service Engine Groups

Session Mode

Server

NEWEDITDELETEDVIEW STATISTICSCOPY PEER CODE

Name	State	Description
test	Enabled	-



Client-Server VPN Configuration (OpenVPN)

In this section you will find the procedure to configure a Client-Server VPN, by means of an OpenVPN template

Important: Each virtual Appliance allows 2 concurrent sessions. If more sessions are required, you will need to purchase a separate license with OpenVPN

It is necessary before provisioning the virtual machine with the VPN software, to configure the network environment within your T1 Edge Gateway with which the Appliance will communicate in order to extend connections.

1. Create a routed network with Internet access, please refer to how to [configure a network in Enterprise Claro Cloud](#)
2. Within the T1 Edge Gateway control panel, select the "NAT" section and create the following rules
 - SNAT – Allow the output of the IP or segment configured in step 1 through the Public IP of the T1 Edge Gateway

The screenshot shows the 'Edit NAT Rule' dialog box with the following configuration:

- Name:** VPN-SNAT
- Description:** (Empty text box)
- Interface Type:** SNAT
- External IP:** 198.57.31.196 (Translated IP or CIDR)
- Internal IP:** 35.35.35.3 (Source IP or CIDR)
- Destination IP:** (Empty text box)
- Advanced Settings:** (Collapsed)
- Buttons:** DISCARD, SAVE

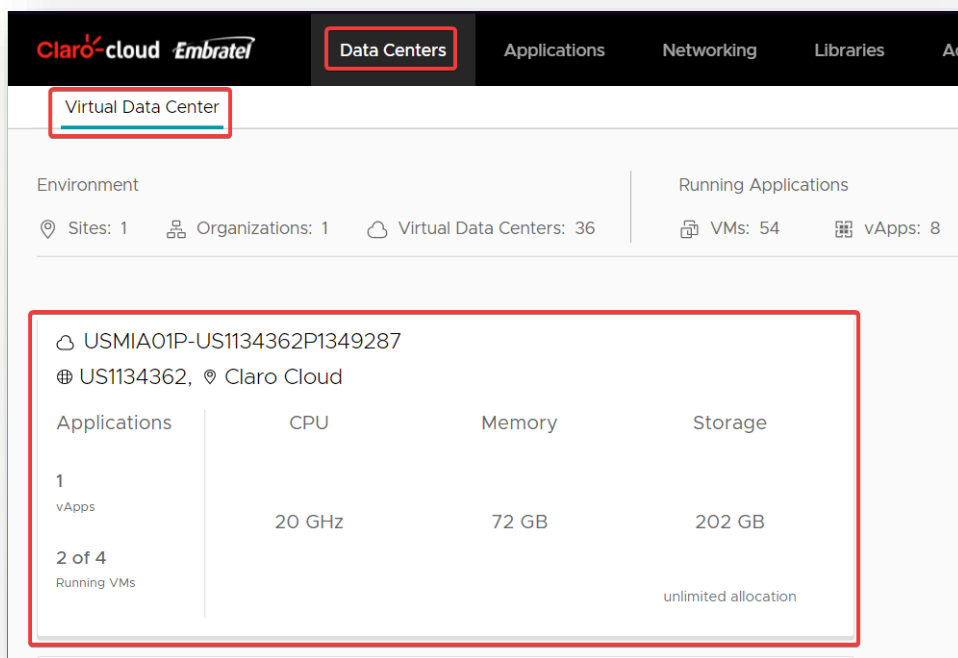
- DNAT - Allow output of the IP or segment configured in step 1 through the Public IP of the T1 Edge Gateway

The screenshot shows the 'Edit NAT Rule' dialog box with the following configuration:

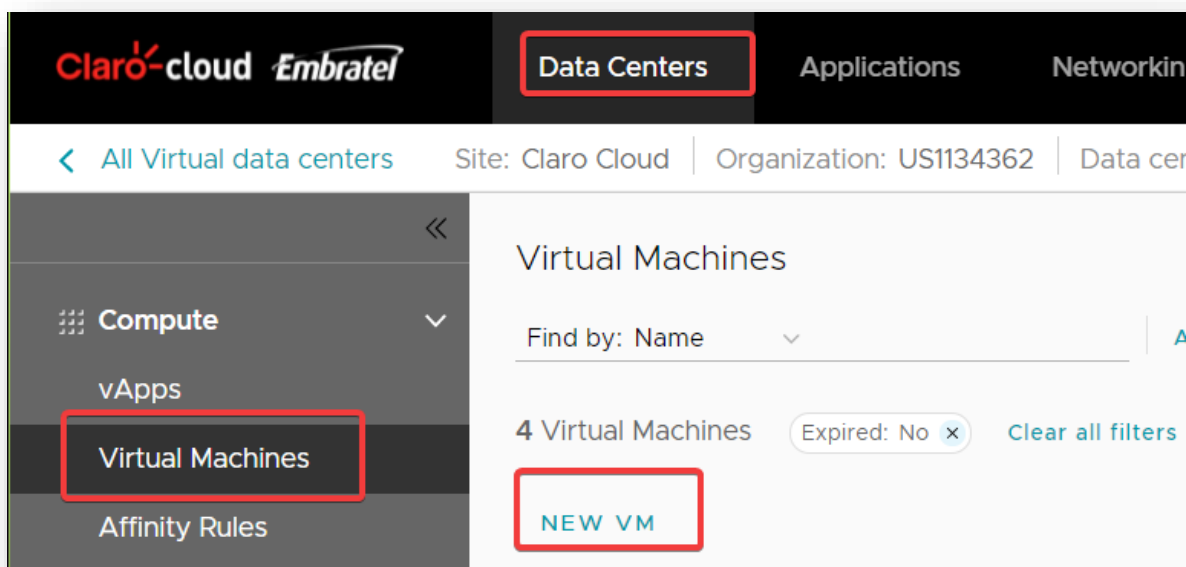
- Name:** VPNDNAT
- Description:** (Empty text box)
- Interface Type:** DNAT
- External IP:** 198.57.31.196 (Destination IP or CIDR)
- External Port:** (Empty text box)
- Internal IP:** 35.35.35.3 (Translated IP or CIDR)
- Application:** - (Translated Port)
- Advanced Settings:** (Collapsed)
- Buttons:** DISCARD, SAVE

Important: Validate that in the firewall of your T1 Edge Gateway, there is no rule that can block outbound internet traffic from the private segment created in step 1

3. Within the main menu select the "Data Center" option and click on the Virtual Data Center box where the VPN service will be deployed. It must be the same Data Center to which the T1 Edge Gateway configured in steps 1 and 2 is associated



4. Within the Data Center select the option "Virtual Machines" and click on "New VM"



5. The following screen will be displayed where you will have to enter the following information. At the end of clicking on "OK" button

Item	Description
Name	Appliance Name

Computer Name	Name that will appear within operating system
Description (Optional)	It is recommended to enter "VPN virtual appliance".
Type	Select From Template
Power on	Keep the check selected

New VM

Name *	VPNClient
Computer Name *	VPNClient
Description	VPN virtual appliance
Type	<input type="radio"/> New <input checked="" type="radio"/> From Template
Power on	<input checked="" type="checkbox"/>

6. In the "Templates" section select the "OpenVPN Access Server" option

Templates

	Name	vApp Name	Catalog	OS
<input checked="" type="radio"/>	OpenVPN Access Server ESXi	OpenVPN	TESTAMX	Ubuntu Linux (64-bit)

7. In the storage and compute sections keep the standard configuration parameters

Storage

Storage Policy

SSDPremium (VDC Default)

Compute

Placement Policy

Q None

Sizing Policy

gp.custom

Virtual CPUs

1

Cores per socket

1

Number of sockets

1

Memory

1

GB

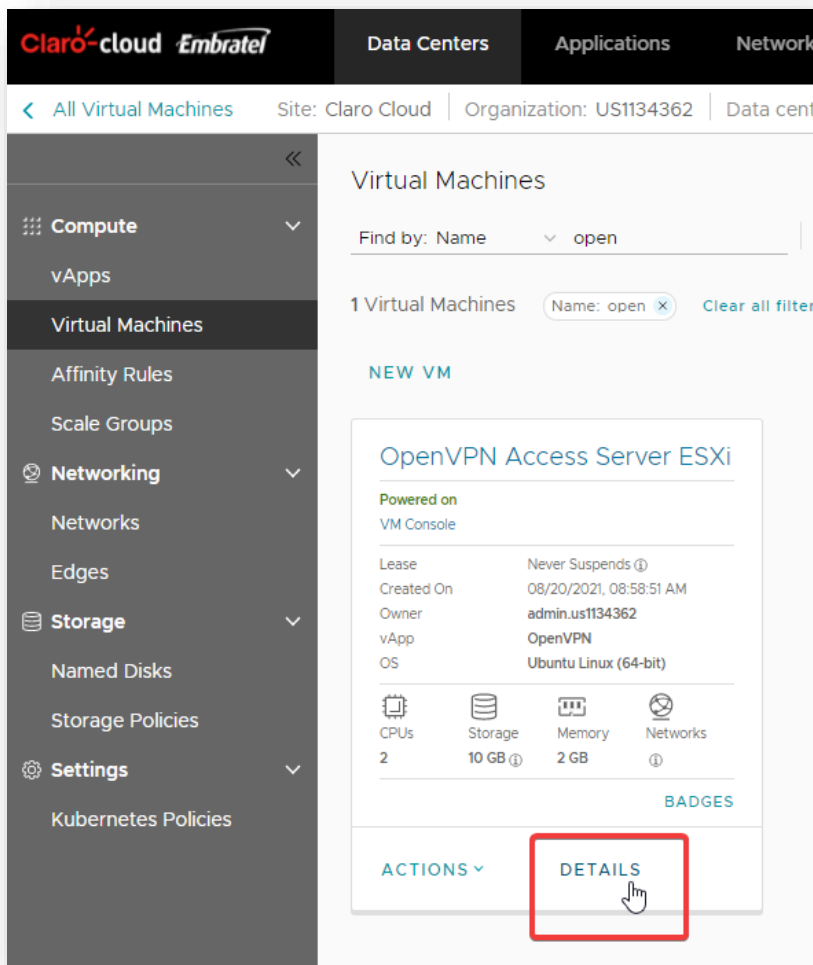
8. In the "NIC" section enter the following information. When you finish clicking "OK", you will start provisioning the virtual machine

Item	Description
Connected	Enable check
Network adapter type	Select VMXNET
Network	Select the network created in step 1
IP Mode	Select Static - Manual
IP address	Enter a valid IP of the selected network

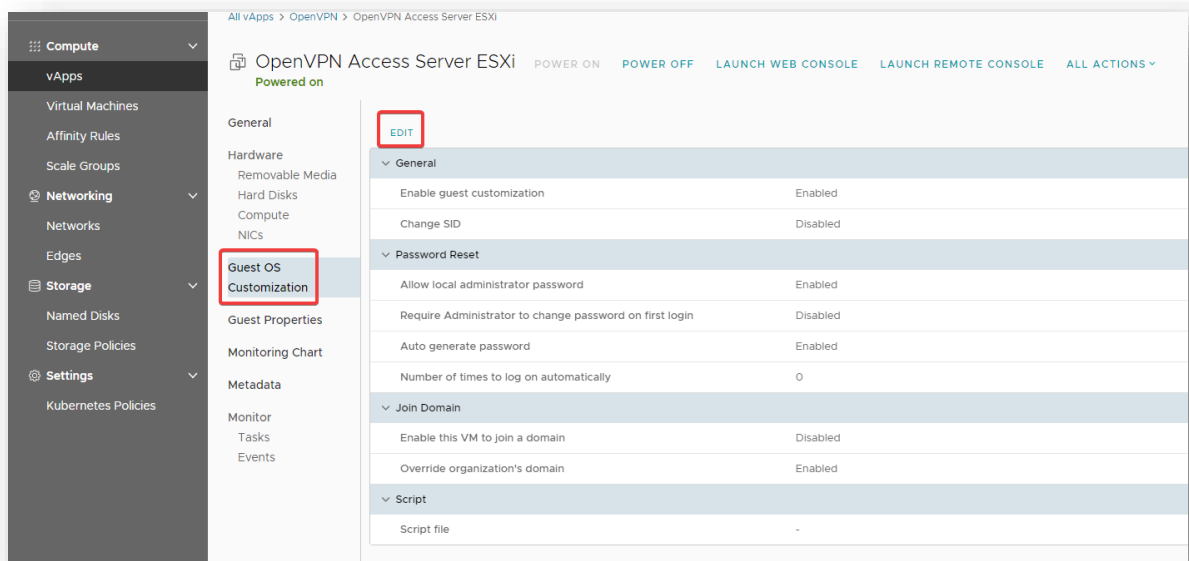
NICs

Primary NIC	NIC	Connected	Network Adapter Type	Network	IP Mode	IP Address	External IP Address	MAC Address
	0	<input checked="" type="checkbox"/>	VM	L2	Sta	192.168.10.50	-	00:50:56:0

9. At the end of provisioning you will be able to view the virtual machine within your data center, by clicking on details.



10. Within the virtual machine panel select "Guest OS Customization" and click "Edit". A screen will open where you can view the default assigned startup password.



11. Open the console of your preference to be able to enter the virtual machine, enter as "root" user and with the password obtained in the previous step. Once logged in you will be prompted to answer the following questions

Question	Answer
Please enter 'yes' to indicate your agreement	Yes
Will this be the primary Access Server node?	Yes
Please specify the network interface and IP Address to be used by the Admin Web UI	Enter the number where the card is indicated with the IP address with which I configured the NIC in step 8
Please specify the port number for the admin Web UI.	943
Please specify the TCP port number for the OpenVPN Daemon	443
Should client traffic be routed by default through the VPN?	No
Should client DNS traffic be routed by default through the VPN?	No
Use local authentication via internal DB?	Yes
Should private subnets be accessible to clients by default?	Yes
Do you wish to login to the admin as "openvpn"	Yes

```
Should client traffic be routed by default through the VPN?
> Press ENTER for default [yes]: no

Should client DNS traffic be routed by default through the VPN?
> Press ENTER for default [yes]: no

Use local authentication via internal DB?
> Press ENTER for default [yes]: yes

Private subnets detected: ['192.168.10.0/24']

Should private subnets be accessible to clients by default?
> Press ENTER for default [yes]: yes

To initially login to the Admin Web UI, you must use a
username and password that successfully authenticates you
with the host UNIX system (you can later modify the settings
so that RADIUS or LDAP is used for authentication instead).

You can login to the Admin Web UI as "openvpn" or specify
a different user account to use for this purpose.

Do you wish to login to the Admin UI as "openvpn"?
> Press ENTER for default [yes]: _
```

12. You will be prompted to enter an activation key, leave blank and click "Enter"

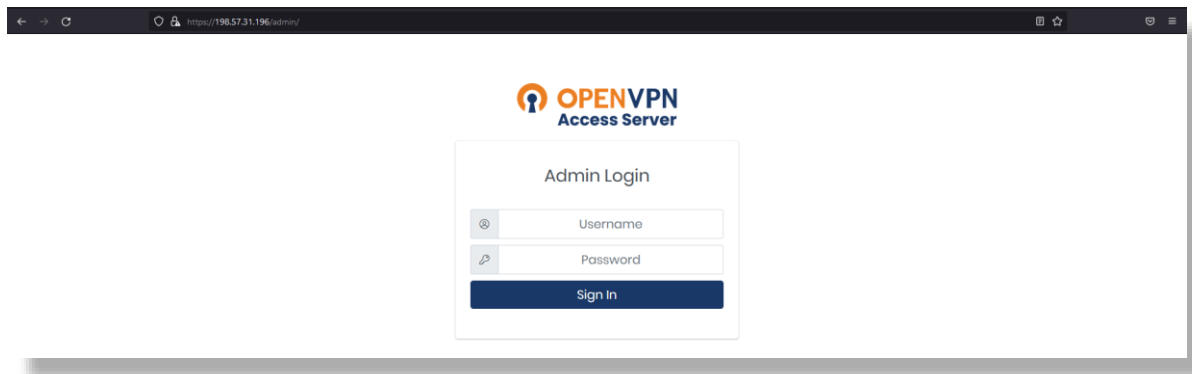
Important: If you require a license, it must be purchased directly with OpenVPN

13. Finally, it will be required to specify a password which will be used to enter your administration console, click "Enter", and wait for the installation of the service to finish

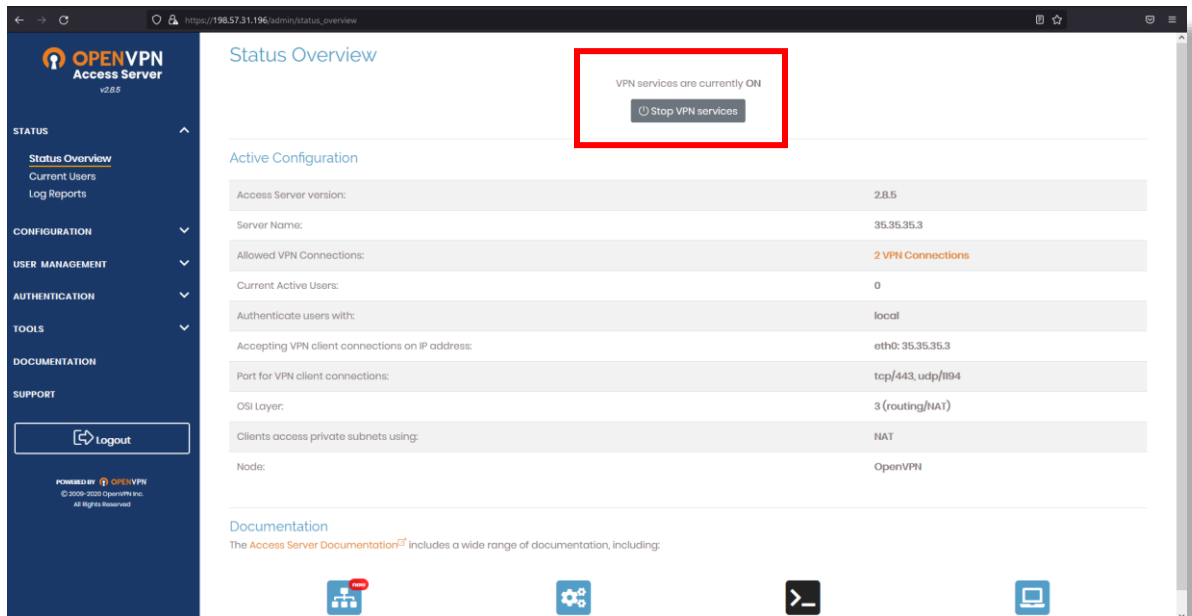
Important: If the option to set the password does not appear, enter the following command
>passwd OpenVPN

14. After the installation is complete, accessing a web browser will require the public IP of your T1 Edge Gateway which was used to configure NAT policies in step 2

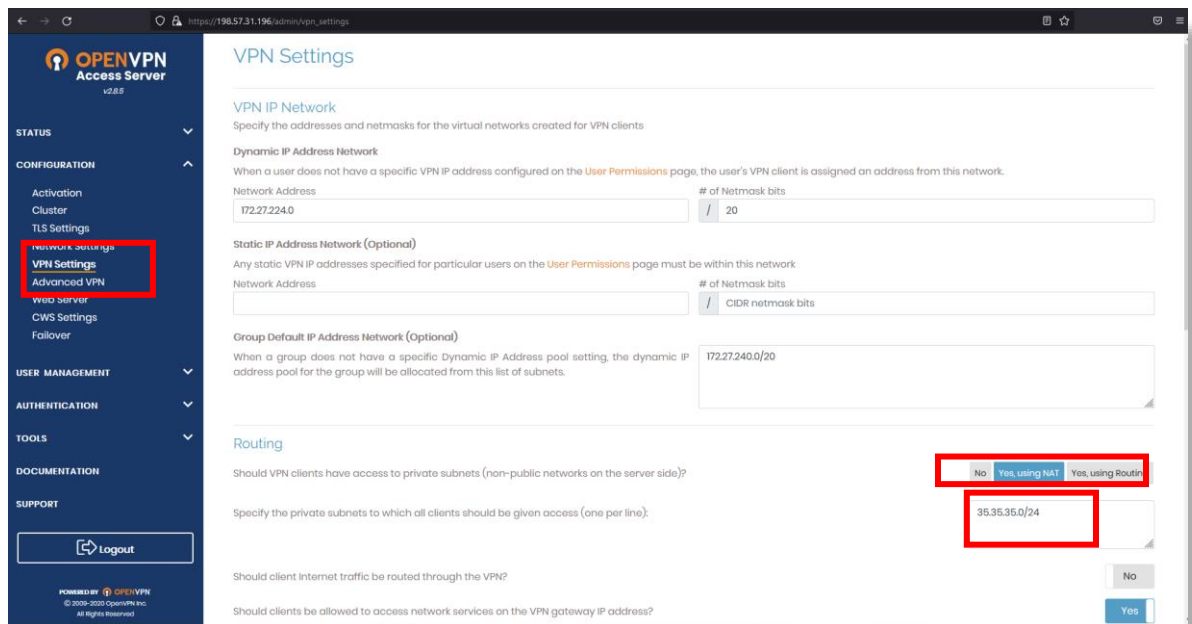
Enter https://<ip_publica_edge>:943/admin/, the next screen will open



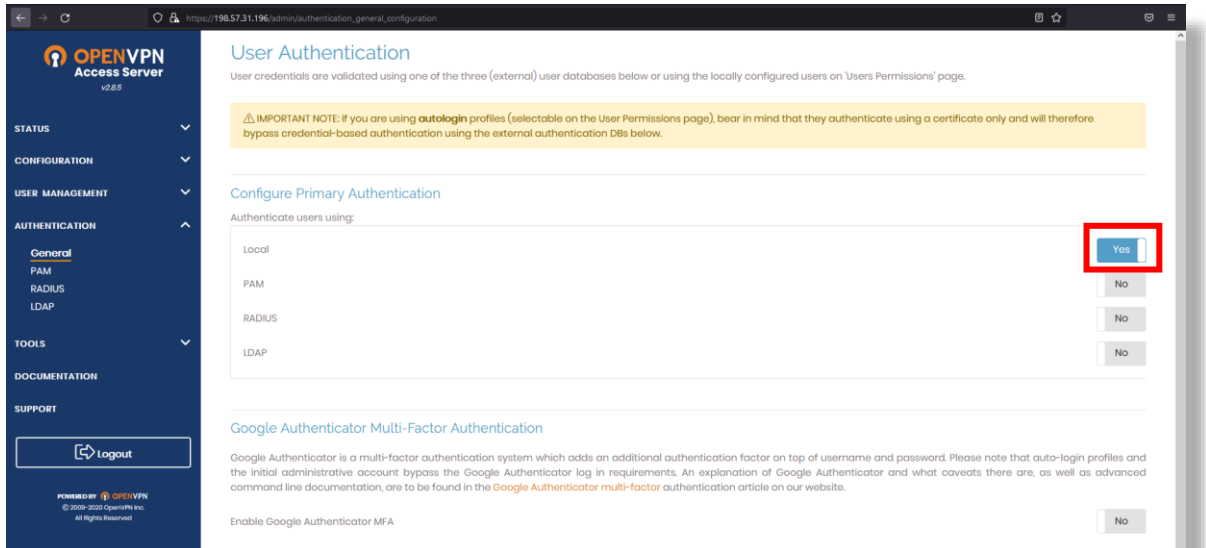
15. Enter in Username: openvpn and Password the password defined in step 13 then you can access your administration console. Validate that the service is Powered on



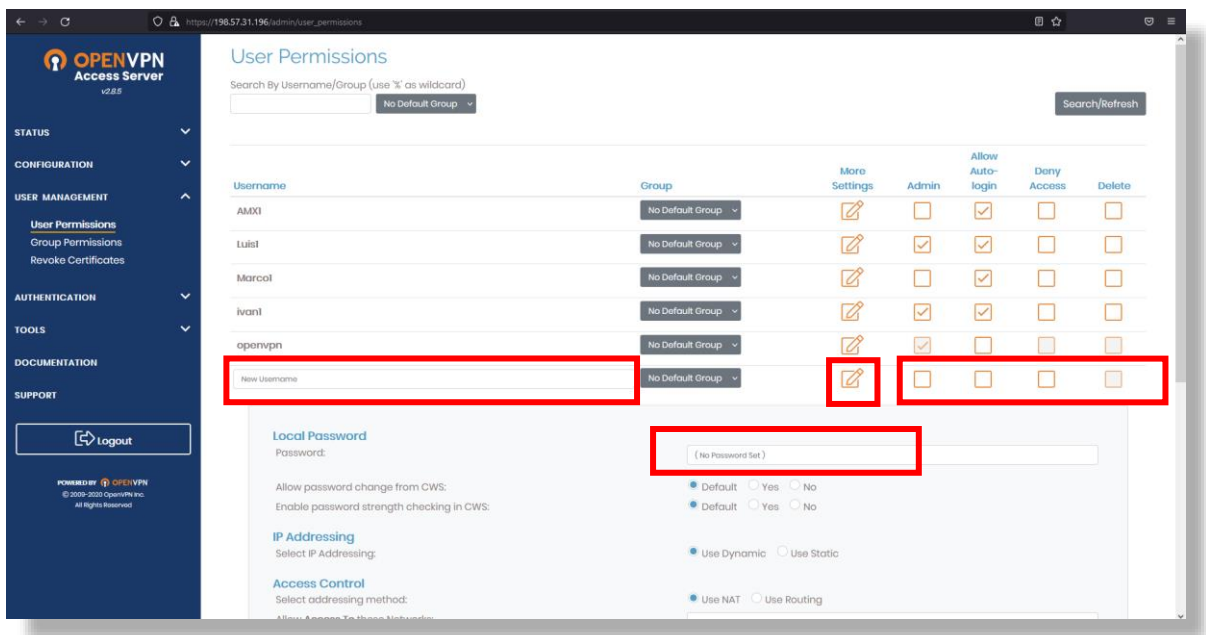
16. In the menu within the "configuration" section click on the "VPN Settings" option. Locate the Routing section and select the "Yes, using NAT" button and within the text box enter the private segments to which you will allow access via VPN



17. Before creating your users go to the "Authentication" section in the generate option, validate that the authentication settings are Local, if not, just slide the button to activate the option



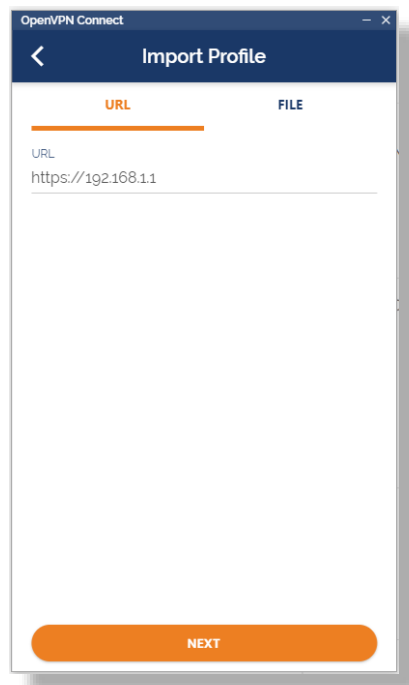
- To create your users, within the menu enter the "User Management" section and click on the "User Permissions" option. Enter the username and select the permissions you want to assign to the users. Finally, click on the "more settings" button and define the access password



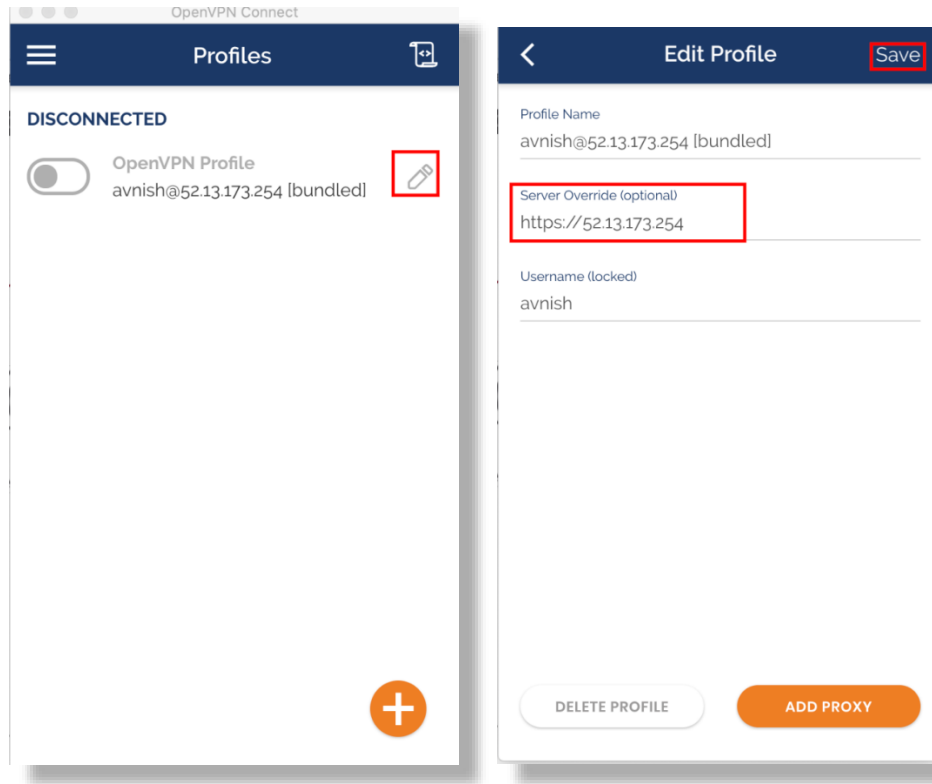
19. New users will be able to enter through the URL https://<ip_publica_edge>/, with the username and password with which was registered. At the time of accessing the next page will open, where you can download the client to connect to your VPN



20. Once the application is downloaded and installed the user must enter the public IP of their service from step 19, and their username and password



21. In your Profile you must ensure that in the Server Override option your public IP from the previous step is shown. If this is not the case, enter it and click on "Save"



22. Finally, just swipe the button on your profile, wait a few seconds, and you can connect to your VPN link

OpenVPN Connect

Profiles

CONNECTED

OpenVPN Profile

avnish@52.13.173.254 [bundled]

CONNECTION STATS

2.7KB/s

0B/s

BYTES IN

40 B/S

BYTES OUT

40 B/S

DURATION

00:00:09

PACKET RECEIVED

0 sec ago

YOU

avnish

YOUR PRIVATE IP

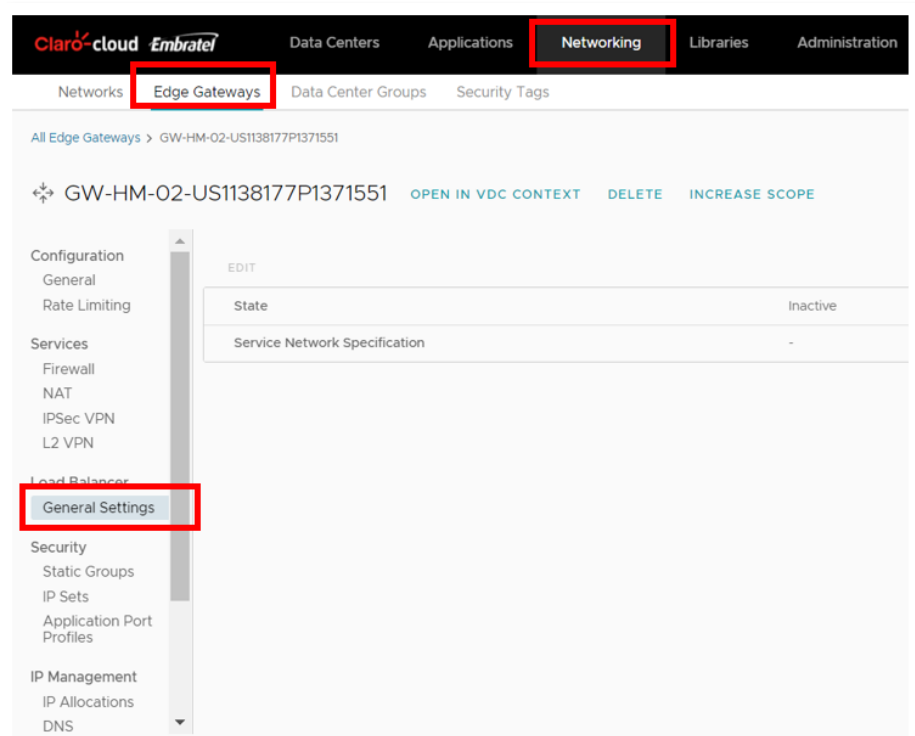
Load Balancer Configuration

This section describes how to configure a load balancer

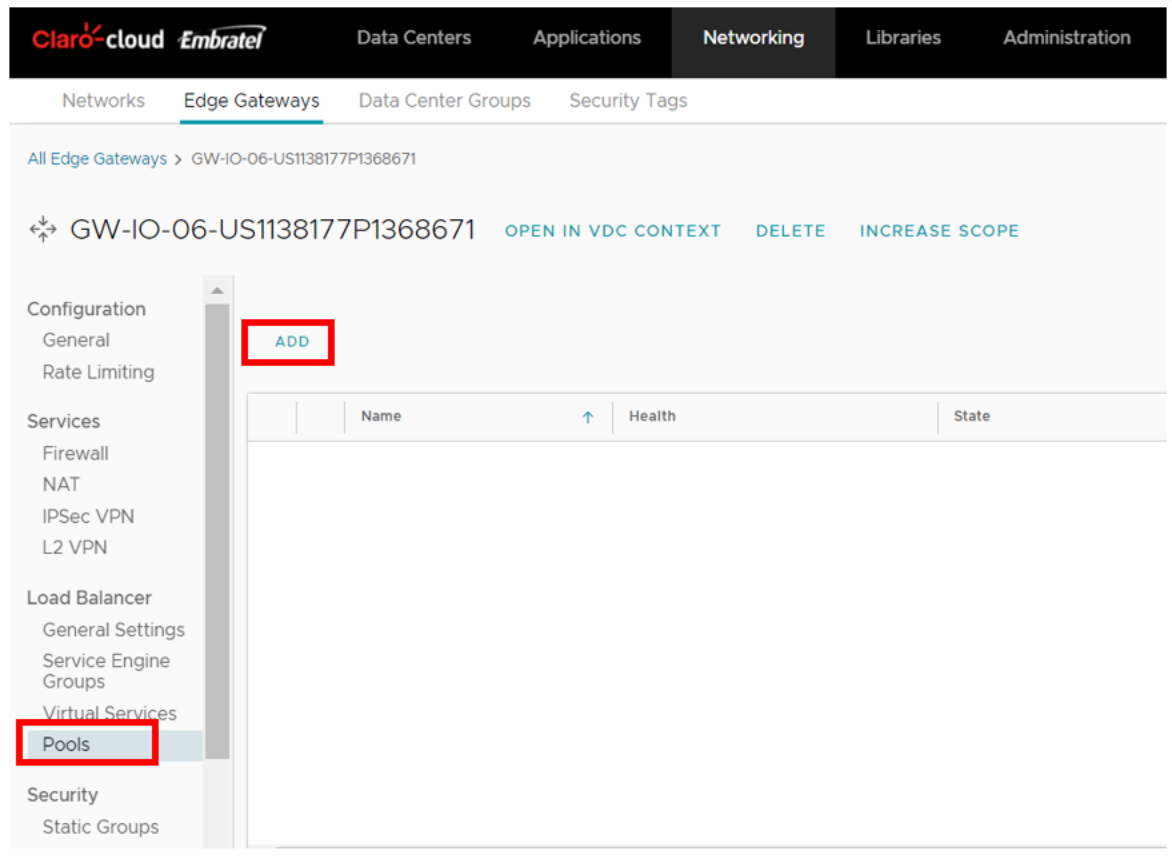
Important: It is necessary to request the activation of the service through Claro technical support

1. Within the panel of the T1 Edge Gateway, in the Load Balancer section select the "General Settings" option, the following screen will be displayed that will contain

Item	Description
State	Indicate whether the service is active or inactive
Service Network Specification	Indicates the address assigned to the balancing instance



2. It is necessary to first configure a group, click within the panel of the T1 Edge Gateway, in the Load Balancer section select the option "Pools"



3. Clicking on Add will open the following screen where you will need to enter the following information in the General Settings section:

Item	Description
Name	Enter the name of the group to be configured
Description	Enter a brief description
Load balancer algorithm	Specifies the algorithm by which traffic will be distributed
State	Enable or disable group status
Default server port	The port of the destination server that the traffic that is sent to the member
Successful de-enablement timeout	Maximum time (in minutes) to successfully disable a member. The virtual service waits for the specified time before terminating existing connections to members that are disabled. Special values: <ul style="list-style-type: none"> • 0 represents "immediate" • -1 represents "infinity"
Persistence	Specifies the persistence profile of a load balancer group. The persistence profile will ensure that the same user adheres to the same server for a desired period of time

Passive state monitoring	Enables or disables passive state
Active health monitoring	Select the protocol with which the status is checked

Add Load Balancer Pool

General Settings
Members
SSL Settings

Name *

Description

Load Balancer Algorithm
Least Connections

State
☒ Enabled

Default Server Port
80

Graceful Disable Timeout
1 minutes

Persistence
None

Passive Health Monitor
☒ Enabled

Active Health Monitor

ADD MONITOR

CANCEL

SAVE

- In the Members section, click on Add, a line will be displayed where you can define the members of the group, entering their IP address and port

Add Load Balancer Pool

General Settings
Members
SSL Settings

ADD

DELETE

IP Address	Health Status	State	Port	Ratio
<input type="radio"/> <input type="text" value="Enter IP Address"/>	-	<input checked="" type="checkbox"/> Enabled	<input type="text" value=""/>	<input type="text" value="1"/>

1 Members

CANCEL

SAVE

- In the SSL section, you can enable SSL and verification by a domain

Note: Enable common name checking for the server certificate. if it is enabled and no explicit domain name is specified the incoming host header is used to perform the match check

Add Load Balancer Pool

General Settings Members **SSL Settings**

☒ SSL Enable

☒ Common Name Check

www.domain.com, *mail.domain.com
Comma separated. Up to 10 allowed.

CANCEL SAVE

- When finished, click on Save and the group will be created
- Now the Virtual Services must be created. Click inside the panel of the T1 Edge Gateway, in the Load Balancer section, and select the option "Virtual Services"

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Data Centers Applications **Networking** Libraries Administration Monitor More

Networks **Edge Gateways** Data Center Groups Security Tags

All Edge Gateways > GW-IO-06-US1138177P1368671

GW-IO-06-US1138177P1368671 OPEN IN VDC CONTEXT DELETE INCREASE SCOPE

Configuration

- General
- Rate Limiting

Services

- Firewall
- NAT
- IPSec VPN
- L2 VPN

Load Balancer

- General Settings
- Service Engine Groups
- Virtual Services**
- POOLS

Name	Health	State	Status	Virtual IP
No Virtual Services found				

8. Click on Add, the next screen will open, where you will have to enter the following information, click save when finished

Item	Description
Name	Enter the name of the Service
Description	Enter a brief description
Enabled	Specifies the status of the service
Service Engine Group	Select the service engine, at the time of activating the service a default engine is added
Load balancer group	Select the group that you want to link to the service
Virtual IP	Virtual IPs can be internal or external. External virtual IPs must belong to the IP pool assigned to the virtual service owner's Edge gateway Important: If it is required to utilize a public IP, it is not possible to reuse an IP in use, it is necessary to acquire a new one.
Type of service	Select the service you want to configure. Note: In cases requiring a reverse HTTP and HTTPS
Port	Enter the port for load balancing

Add Virtual Service

Name *

Input is required

Description

Enabled

Service Engine Group *

SELECT

Load Balancer Pool *

SELECT

Virtual IP *

Service Type

HTTP

Port

80

ADD PORT

CANCEL

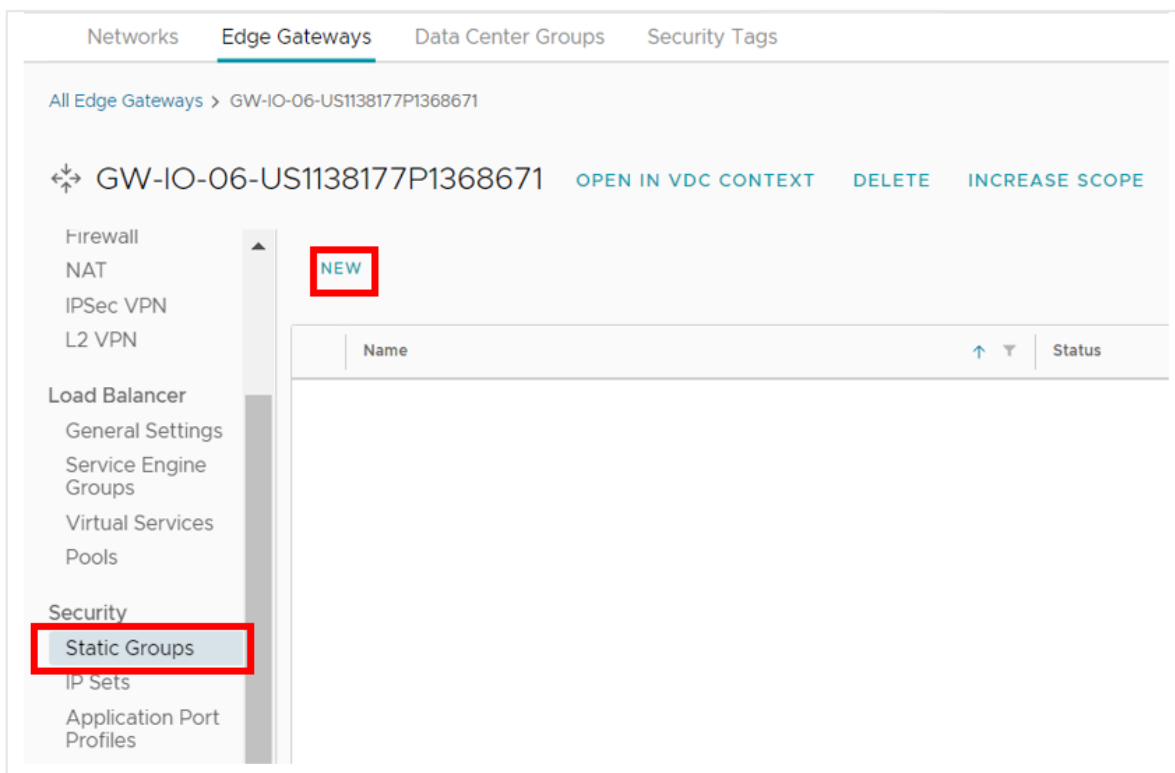
SAVE

Configuring Security Groups

This section describes how to configure static security groups to more efficiently establish permissions and access to internal and external networks in a data center

Before you can create the static security group, perform the following process.

1. Within the T1 Edge Gateway dashboard, select the "Static Groups" option and click the "New" button



2. The following screen will be displayed where you will have to enter the following information. When finished, click the save button

Item	Description
Name	Security group name
Description	Description of the Static Group

New Static Group

×

Name *

Input is required

Description

DISCARD

SAVE

3. The created static security group will be listed and the following options will be enabled

Item	Description
Edit	Edit the name and description of the created group
Manage members	Link the local networks of the Virtual Data Center to the security group
Associated VMS	Lists virtual machines associated with networks linked to the security group
Delete	Deletes the security group

Networks

Edge Gateways

Data Center Groups

Security Tags

All Edge Gateways > GW-IO-06-US1138177P1368671

GW-IO-06-US1138177P1368671

OPEN IN VDC CONTEXT

DELETE

INCREASE SCOPE

NEW

EDIT

MANAGE MEMBERS

ASSOCIATED VMS

DELETE

Name

↑ ↓

Status

tstgroup

Normal

Firewall

NAT

IPSec VPN

L2 VPN

Load Balancer

General Settings

Service Engine Groups

Virtual Services

Pools

Security

Static Groups

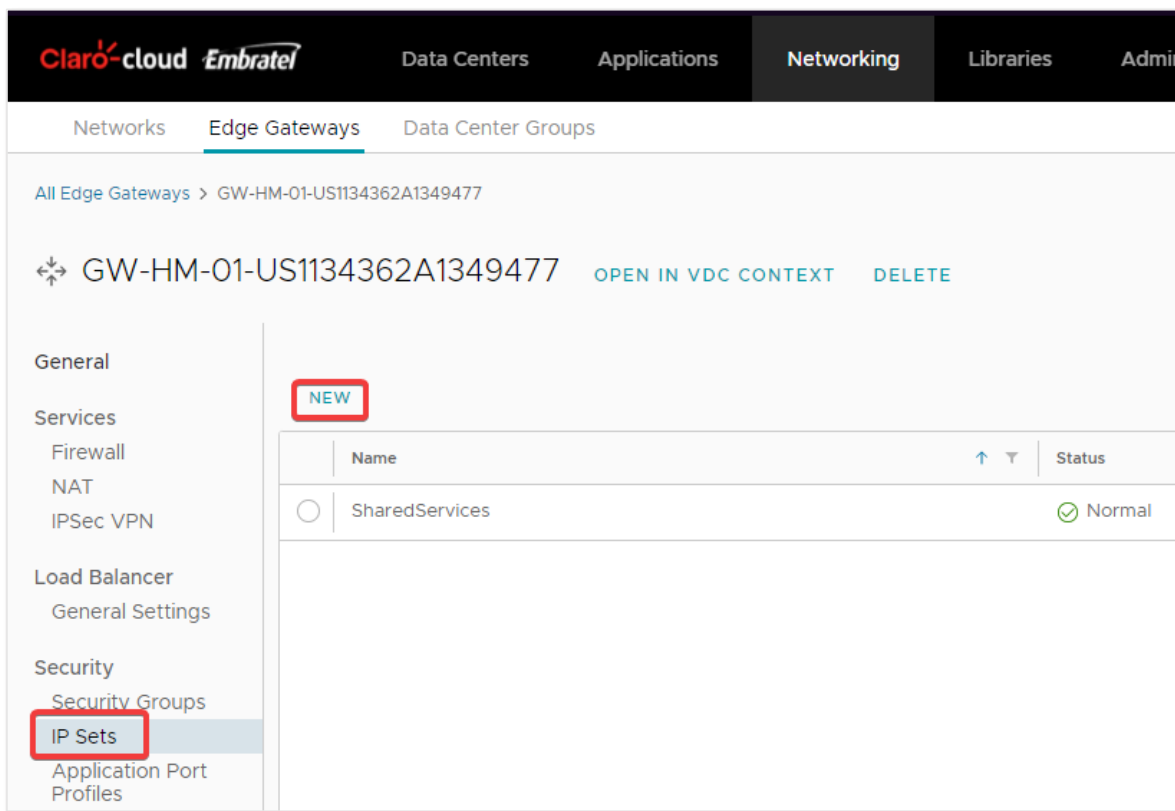
IP Sets

Application Port Profiles

IP Address Set Configuration

This section creates the IP address sets that will help you efficiently define firewall rules

1. Within the T1 Edge Gateway dashboard, select the "IP Sets" option and click the "New" button



2. The following screen will be displayed where you will have to enter the following information. At the end of clicking the save button

Item	Description
Name	IP address set name
Description (optional)	Optional description of the IP address set
IP addresses	Define pool of IP addresses or IP address.

3. The set of defined IP addresses will be listed and can be used later in the configuration of firewall rules in the source and destination fields

NEW ON TOP NEW ABOVE REMOVE MOVE UP MOVE DOWN MOVE TO GO TO USER RULES										
	#	Name	Category	State	Applications	Source	Destination	Action	IP Protocol	Logging
<input type="radio"/>		Tier1-c217a58d-5544-4d4...	System	Enabled	-	Any	Any	Allow	-	Disabled
<input type="radio"/>		Tier1-c217a58d-5544-4d4...	System	Enabled	-	Any	Any	Allow	-	Disabled
<input checked="" type="radio"/>		1 SharedServices	User defined	Enabled	-	Any	SharedServices	Allow	IPv4	Disabled

Configuring Application Port Profiles

In this section you can view the profiles with the most common network ports and you can configure unusual port(s) profiles for later use in firewall rules

Important: The following unusual ports are blocked for security.

- TCP/UDP 27000-27050, TCP/UDP 5790-5850, UDP 2300-2400, TCP/UDP 3475-3480, TCP/445, UDP/161/ SNMP, TCP/UDP 135-139

In cases requiring these ports being open, it must be requested through Claro Cloud support, to evaluate the feasibility and its opening

Process for creating an application port profile

1. Within the T1 Edge Gateway dashboard, select the "Application Port Profiles" option and click the "New" button

New Application Port Profile

×

Name *

Test

Description

ADD PORT PROFILE

Protocol

TCP

TCP

UDP

ICMPv4

ICMPv6

Ports

Ports separated by comma

DISCARD

SAVE

Note: The protocol field may not show the selected option, but the selected option will be considered.

IP Address Management

In this section you can view the public address assigned to your T1 Edge Gateway service, as well as the DNS configuration

1. Within the dashboard of the T1 Edge Gateway, select the option "IP Assignments", inside you can view the range or public IP addresses assigned to your T1 Edge Gateway, and the services to which the address is linked

The screenshot shows the 'Networking' section of the Claro Cloud Embratel interface. The left sidebar contains a menu with 'IP Allocations' highlighted. The main content area displays 'Allocated IPs' and 'IPs Used' for the Edge Gateway 'GW-IO-06-US1138177P1368671'. The 'Allocated IPs' table shows an IP Range of '198.57.31.134 - 198.57.31.134' and an IP Block of '198.57.31.129/26'. The 'IPs Used' table lists three instances of '198.57.31.134' with a 'Usage' dropdown menu open, showing options: 'L2_VPN', 'IPsec_VPN', and 'SNAT'.

IP Range	IP Block
198.57.31.134 - 198.57.31.134	198.57.31.129/26

IP Used	Usage
198.57.31.134	L2_VPN
198.57.31.134	IPsec_VPN
198.57.31.134	SNAT

- If you require additional public IP addresses, click on the top menu in the "Libraries" section and select the "Service Libraries" option from the submenu

Important: Each T1 Edge Gateway includes a public IP address. Additional public addresses have an additional cost

- In the "Add Public IP Address" box click the "Execute" button

The screenshot shows the 'Libraries' section of the Claro Cloud Embratel interface. The left sidebar contains a menu with 'Service Library' highlighted. The main content area displays the 'Service Library' page with a search bar and three service cards: 'Add Edge Gateway', 'Add Public IP Address', and 'Add User'. The 'Add Public IP Address' card has an 'EXECUTE' button highlighted.

Service	Category	Monthly fees apply	Action
Add Edge Gateway	Networking	Monthly fees apply	EXECUTE
Add Public IP Address	Networking	Monthly fees apply	EXECUTE
Add User	User Management	Create new user	EXECUTE

4. The following screen will be displayed where you will have to enter the following information. When finished click the "Run" button

Item	Description
Edge GW	Identify the T1 Edge Gateway service to which you want to assign public IP addressing
Quantity	Enter the number of public IP addresses to be purchased

Edge GW *

Quantity *

RUN CANCEL

DNS Configuration

In this section, you can configure the DNS settings that the Edge will use for name resolution.

Important: The Domain service is not included in the T1 Edge Gateway service. If you do not have a specific DNS, keep the configuration defined by default

To configure the DNS, follow the following process

1. Within the T1 Edge Gateway panel, select the "DNS" option, click the "Edit" button

Claró-cloud

Embratel

Data Centers

Applications

Networking

Libraries

Administration

Networks

Edge Gateways

Data Center Groups

Security Tags

All Edge Gateways > GW-IO-06-US1138177P1368671

↔ GW-IO-06-US1138177P1368671

OPEN IN VDC CONTEXT

DELETE

INCREASE SCOPE

NAT

IPSec VPN

L2 VPN

Load Balancer

General Settings

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Virtual Services

Pools

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Static Groups

IP Sets

Application Port Profiles

IP Management

IP Allocations

DNS

DHCP Forwarding

DNS Forwarder

EDIT

State

Disabled

Listener IP ⓘ

-

▼ Default Zone

Name

-

Upstream Servers

-

Conditional Forwarder Zones ⓘ

Managing Conditional Forwarder Zones requires the Default Forwarder Zone to be configured first.

Name

Upstream Servers

- The following screen will be displayed where you will have to enter the following information.
When finished, click the save button

Item	Description
State	Enable/Disable service
Use default value	Enable/Disable Default IP
IP address	DNS listener IP address
Upstream servers	DNS rule name

Edit DNS

×

State

☐

Default Zone

Name *

Upstream Servers *

Provide up to 3 IP addresses

+ ADD

DISCARD

SAVE

Purchase of an additional T1 Edge Gateway

Important: The T1 Edge Gateway service can manage the networks of more than one Virtual Data Center in the same compute region.

1. If you require a T1 Edge Gateway, click on the top menu in the "Libraries" section and select the "Service Libraries" option in the submenu

Important: Each T1 Edge Gateway includes a public IP address. Additional public addressing has an additional cost

2. In the "Add Edge Gateway" box click the "Execute" button

Claro cloud Embratel

Data Centers

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Networking

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Monitor

Content Libraries

vApp Templates

Media & Other

Catalogs

Services

Service Library

Custom Entity Definitions

Service Library

Search...

Currently showing: All results

Add Edge Gateway

Networking

Monthly fees apply

EXECUTE

Add Public IP Address

Networking

Monthly fees apply

EXECUTE

Add User

User Management

Create new user

EXECUTE

3. The following screen will be displayed where you will have to enter the following information. When finished, click the "Finish" button

Item	Description
------	-------------

DataCenter	Data center where the new Edge Gateway will be deployed
WAN Access	Connectivity type, you can select Internet or an MPLS hybrid connection
CIDR	Private network segment
LAN Name	Name to be assigned to this network

DataCenter *

ARBUE01P-US1138177P1376055

WAN Access *

Internet

CIDR *

50.50.50.0/24

LAN Name *

Internet

RUN

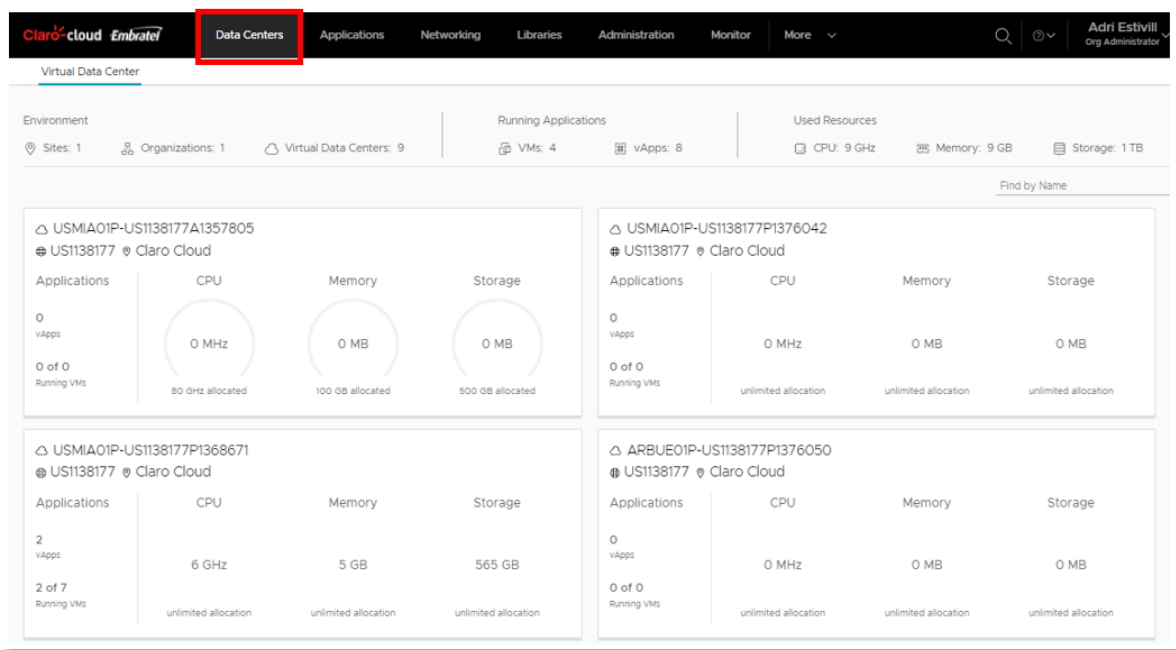
CANCEL

6. Virtual Machines

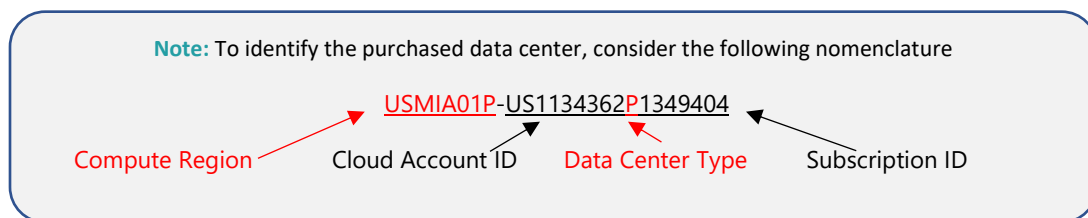
In Enterprise Claro Cloud you will find two different methods for deploying virtual machines, provisioning through our Public Catalog or from a custom image (Private Catalog)

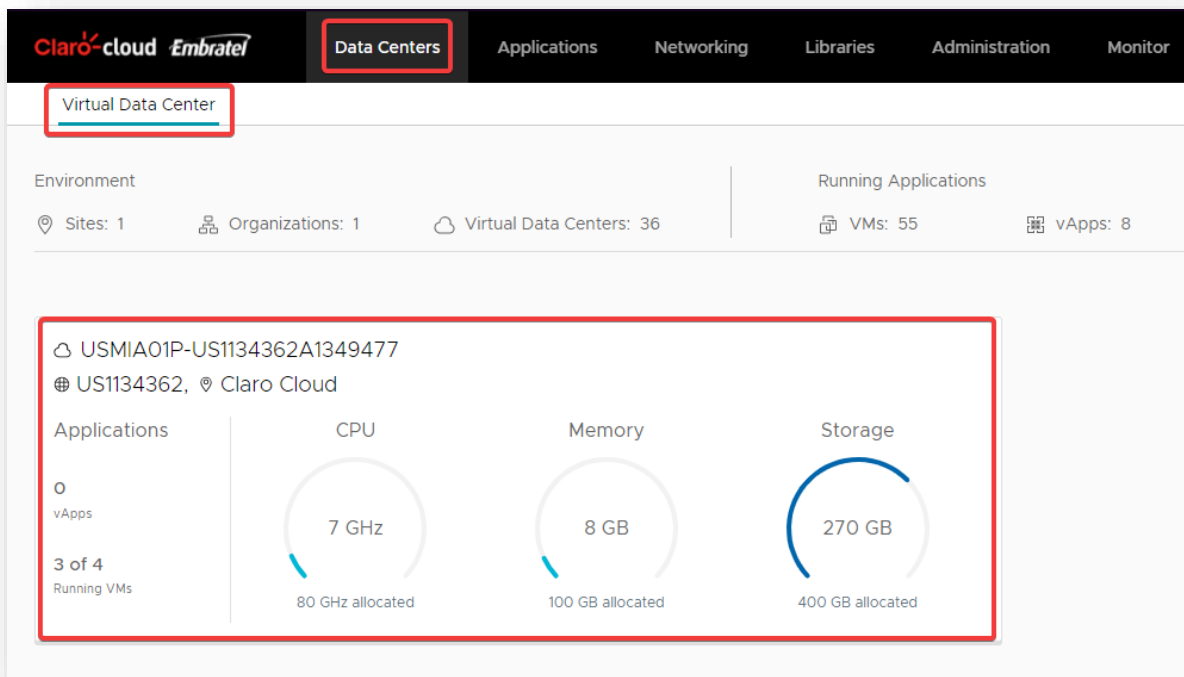
To access the virtual infrastructure management panel follow the following process

1. Click on the top menu to the "Data Center" option.

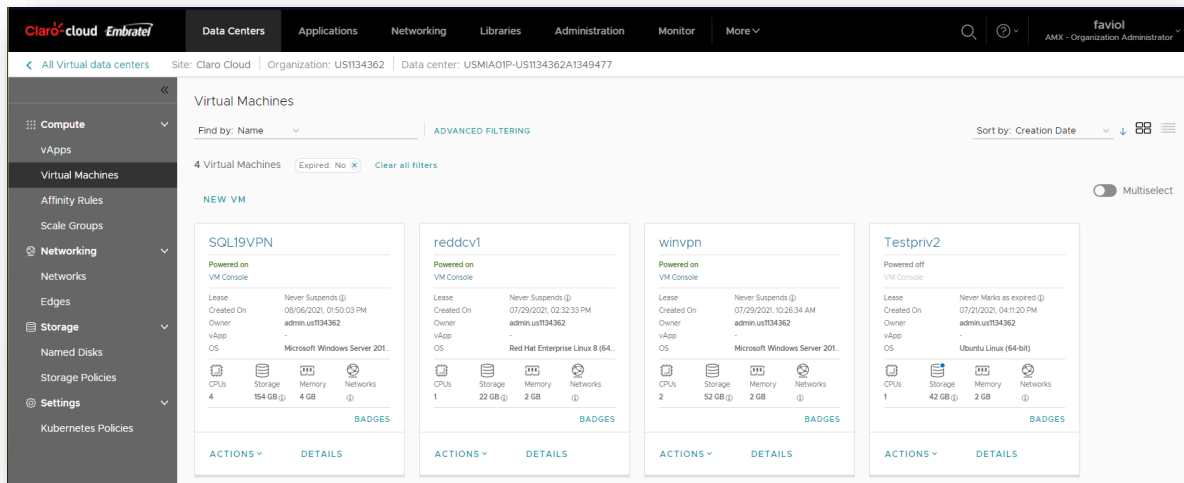


2. Select the Data Center where you need to create virtual machines, click the box.





3. The following screen will be displayed, where you can deploy your virtual machines



Create a Virtual Machine from the Public Catalog

In this section you will see the process to be able to deploy a virtual machine from the Enterprise Claro Cloud public catalog

It is important to know that you will be able to find the following catalogs by default

Item	Description
VM-Catalog	Includes available operating systems.

App-Cat	Includes templates for deploying apps through App LaunchPad.
K8s-Catalog	Includes Kubernetes cluster deployment templates.

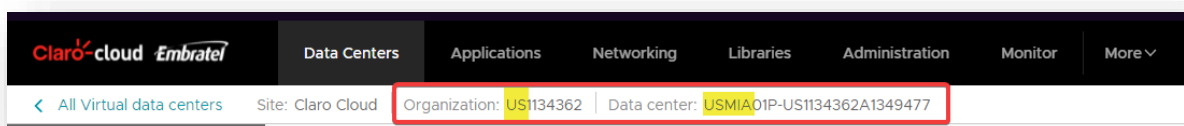
Important: All catalogs have a country-defined nomenclature. For example, United States: **USMIA01P**

Operating systems available in the VM-Catalog:

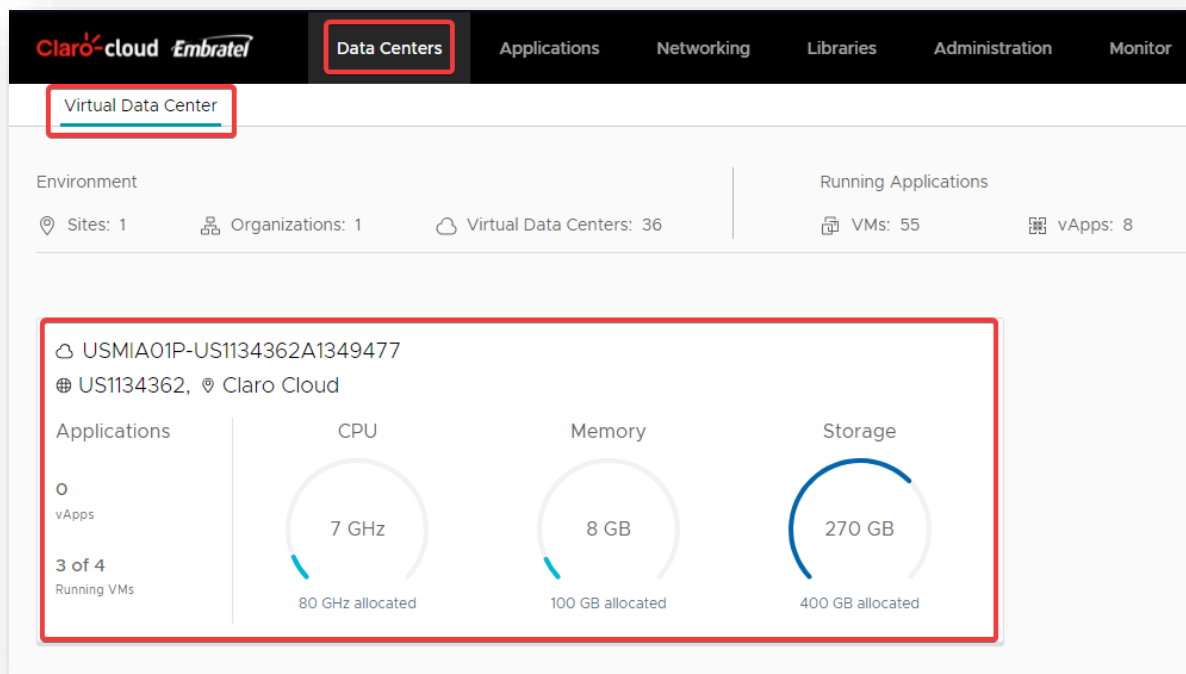
- Windows Server 2012 Standard R2
- Windows Server 2016 Standard R2
- Windows Server 2019
- Windows Server 2012 Standard R2 + SQL ST 2012
- Windows Server 2016 Standard R2 + SQL ST 2017
- Windows Server 2019 + SQL ST 2019
- RedHat 7
- RedHat 8
- RedHat Load Balancer
- RedHat for SAP HANA
- SUSE Enterprise Server 15
- SUSE Enterprise Server 12 for SAP HANA
- Debian Standard 10
- CentOS 7
- CentOS 8
- Ubuntu Server 16.04 LTS
- Ubuntu Server 18.04 LTS
- Ubuntu Server 20.04 LTS
- VeloCloud

Note: It is important to validate the Claro Cloud region where the data center is located in order to deploy the catalog templates corresponding to that same region.

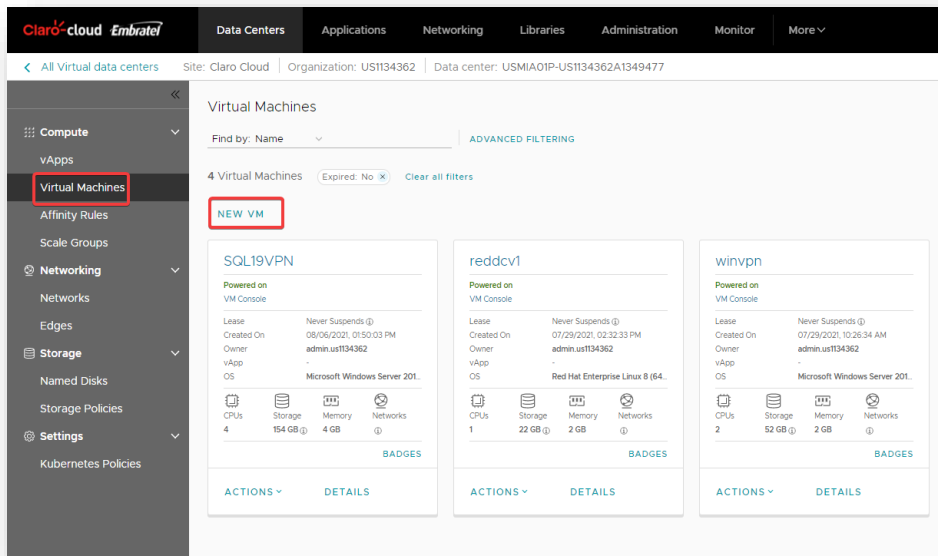
This definition can be found in the data center nomenclature and templates as shown in the example below



1. In the Datacenter menu, select Virtual Data Center, click the check box



2. Within the Data Center panel, select the "Virtual Machines" option in the left panel and then click on "New Virtual Machine".



3. The following screen will be displayed where you will have to enter the following information. At the end of clicking on "OK" button

Item	Description
Name	Virtual machine name
Computer Name	Name that will appear within operating system
Description (Optional)	Description of the virtual machine. It is recommended to fill this field with something descriptive for documentation purposes.

New VM

Name *

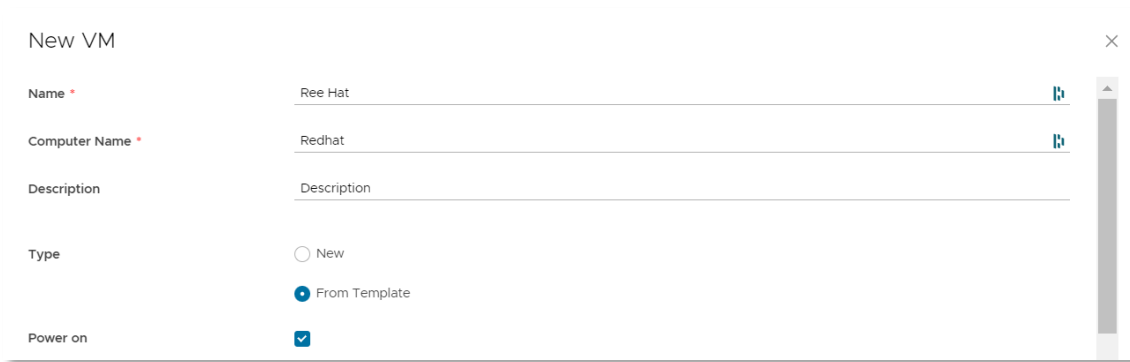
redhat

Computer Name *

redhat

Description

4. Select the "From Template" option to upload the catalog of available virtual machines.



The screenshot shows a 'New VM' form with the following fields and options:

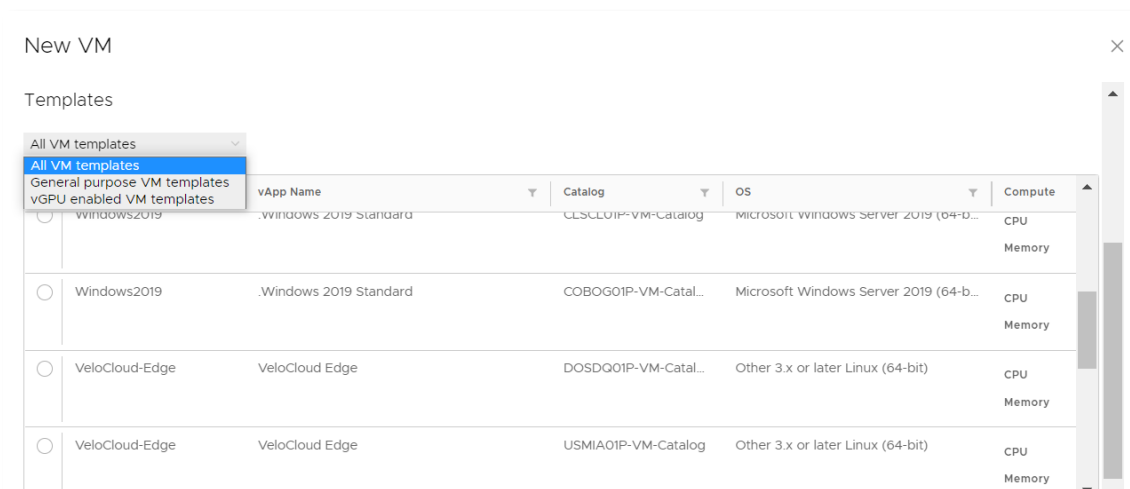
- Name ***: Ree Hat
- Computer Name ***: Redhat
- Description**: Description
- Type**:
 - ☐ New
 - ☒ From Template
- Power on**: ☒

5. Select the Power on option if you require the virtual machine to power on automatically after creation.



A close-up of the 'Power on' checkbox, which is checked and highlighted with a red rectangle.

6. In the Templates section you can find the different operating system images available in the Enterprise Claro Cloud catalog for all regions where you have hosted data centers.



The screenshot shows the 'New VM' form with the 'Templates' section expanded. A dropdown menu is open, showing the following options:

- All VM templates
- All VM templates (highlighted)
- General purpose VM templates
- vGPU enabled VM templates

The table below shows the available templates:

	vApp Name	Catalog	OS	Compute	
<input type="radio"/>	Windows2019	.Windows 2019 Standard	CLSCLOIP-VM-Catalog	Microsoft Windows Server 2019 (64-b...	CPU Memory
<input type="radio"/>	Windows2019	.Windows 2019 Standard	COBOG01P-VM-Catal...	Microsoft Windows Server 2019 (64-b...	CPU Memory
<input type="radio"/>	VeloCloud-Edge	VeloCloud Edge	DOSDQ01P-VM-Catal...	Other 3.x or later Linux (64-bit)	CPU Memory
<input type="radio"/>	VeloCloud-Edge	VeloCloud Edge	USMIA01P-VM-Catalog	Other 3.x or later Linux (64-bit)	CPU Memory

7. In the Storage section, SSDPremium will load by default.

Storage

Storage Policy

SSDPremium (VDC Default)

- By default, the placement policy will be preloaded, in the computing region where the virtual machine will be provisioned and indicated

Compute

Placement Policy

Virtual CPUs 1

Cores per socket 1

Number of sockets 1

Memory 1 GB

Important: If you select a template from a region other than the datacenter, the following alert will appear:
The selected virtual machine template is labeled with the "DOSDQ01P-VM" policy, which is not valid for this VDC. Select another template.

- Set the size policy, where you can choose from the following options:

- Preconfigured templates:

Templates	vCPU	RAM (GB)
gp.xsmall-01	1	1
gp.small-01	2	4
gp.small-02	2	8
gp.medium-01	4	8
gp.medium-02	4	16
gp.medium-03	8	16
gp.medium-04	8	32
gp.large-01	16	32
gp.large-02	16	64
gp.xlarge-01	32	96
gp.xlarge-02	32	128

- Custom template – You will be able to define the size in a custom way

Resource	Limit
vCPU	1 - 128
RAM (GB)	1 - 2048

Important: By default, a base disk is added to each virtual machine, which will be used to install the Operating System

20 GB for Linux Operating Systems and 50 GB for Windows Operating Systems

11. In the NICs section, you will be able to enter the settings for the virtual machine's network card(s).

Item	Description
Primary NIC	Select the primary NIC of the virtual machine.
NIC	Order of the NIC on the virtual machine.
Connected	NIC status (Connected/Disconnected).
Network adapter type	Adapter type in the virtual machine E100E / SRIOVETHERNETCARD / VMXNET3 (Recommended)
Net	The network to which the NIC will connect. For the generation of a new network, see the section How to configure networks in Claro Cloud
IP Mode	Mechanism for IP assignment None / DHCP / Static – IP Address Pool (Recommended) / Manual Static
IP address	IP address of the network adapter
MAC Address	The physical address of the network adapter. Loads automatically

NICs

Primary NIC	NIC	Connected	Network Adapter Type	Network	IP Mode	IP Address	MAC Address	
	0	<input type="checkbox"/>	VMXNET3	None	None		00:50:56:01:32	

Important: We recommend that you configure at least one NIC in the virtual machine provisioning process.

Otherwise, the configuration can be done, but it is necessary to finish it at the operating system level manually

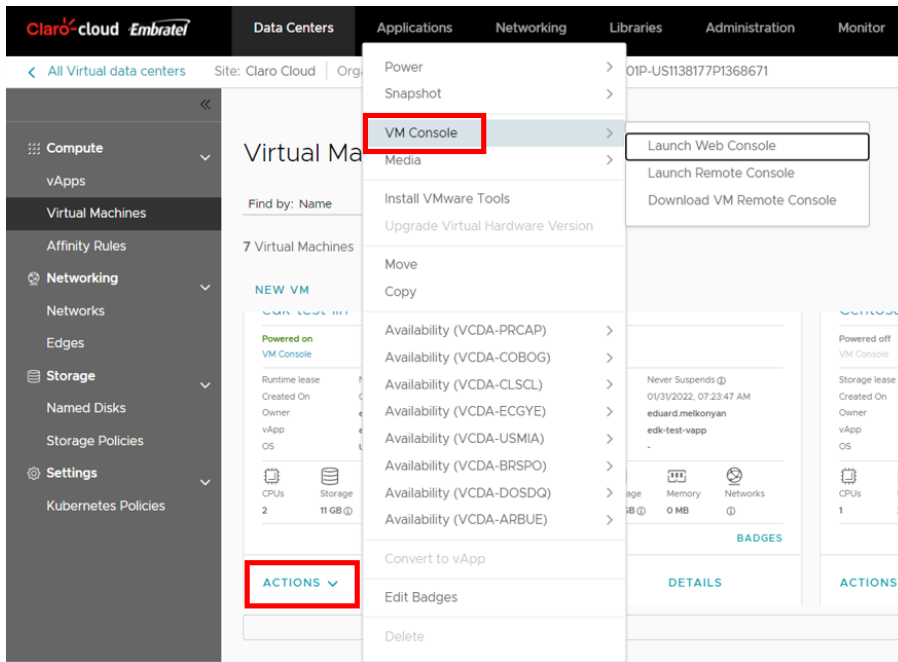
- Click "OK" to finish deploying the virtual machine. This may take a few minutes; you will be able to see the progress on the taskbar.

Recent Tasks			
Task	Status	Type	
Composing Virtual Application SQL-Prod-01-adf632a1-3ddb-41bb-87c7-911e403a61a7(a458b9d9-ac37-404c-9eb1-822130026882)	<div><div></div></div> 1%	vapp	

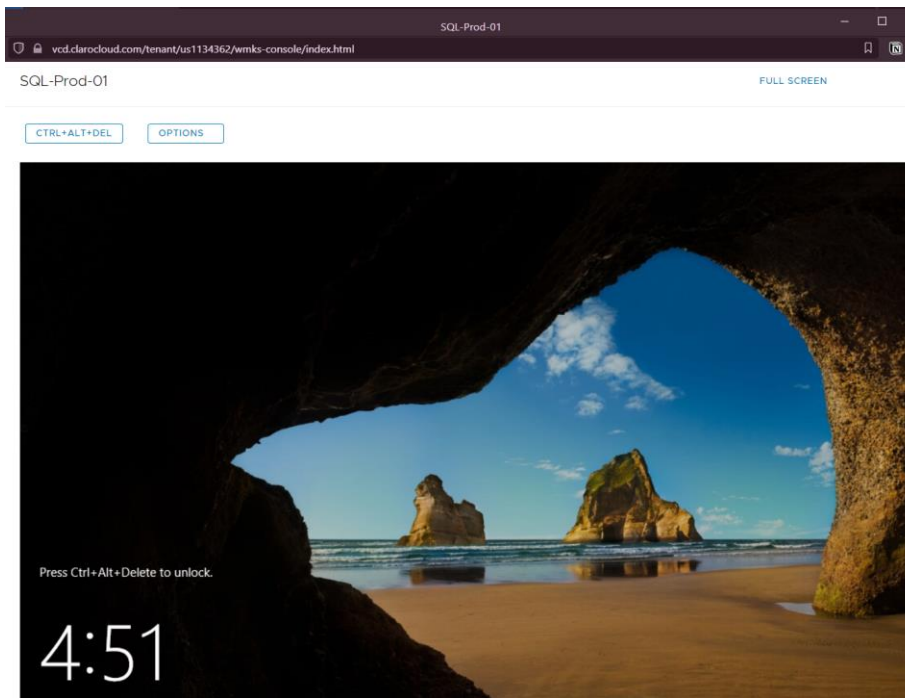
- When the process is finished, you will find the virtual machine available on the "Virtual Machines" menu

The screenshot displays the 'Virtual Machines' section of the Claro Cloud Embratel interface. The left sidebar contains navigation options: Compute (vApps, Virtual Machines, Affinity Rules), Networking (Networks, Edges), Storage (Named Disks, Storage Policies), and Settings (Kubernetes Policies). The main content area shows a list of 7 virtual machines. Two VMs are highlighted: 'Ubuntu20' and 'SQL2019'. The 'Ubuntu20' VM is powered off and has 3 CPUs, 52 GB storage, 2 GB memory, and 1 network. The 'SQL2019' VM is powered on and has 4 CPUs, 204 GB storage, 4 GB memory, and 1 network. Both VMs have a 'BADGES' button at the bottom of their respective boxes.

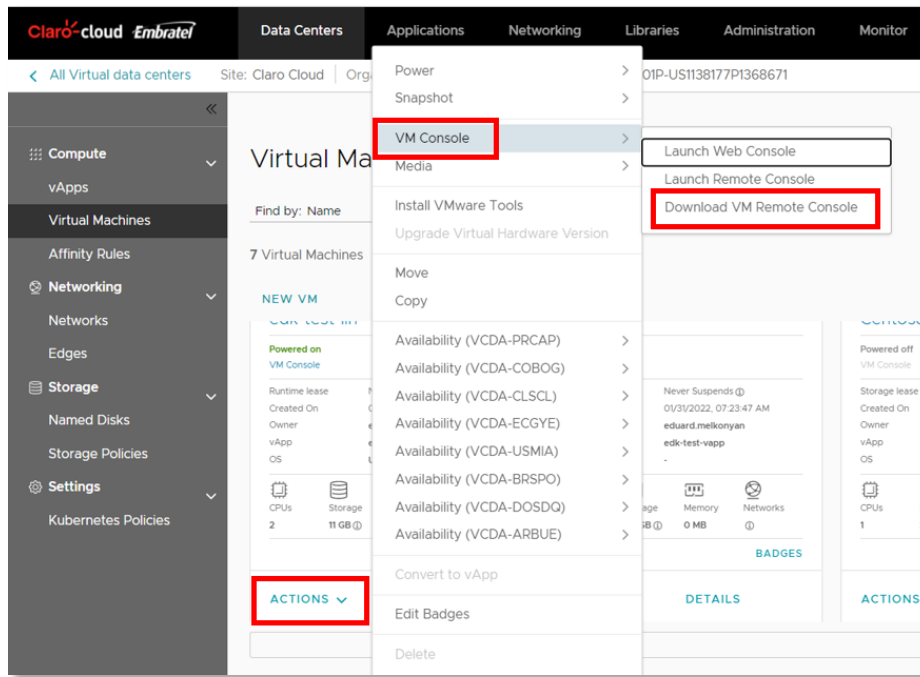
- To enter the virtual machine, click on "Actions" within the virtual machine box, select "Virtual Machine Console" and then "Launch Web Console".



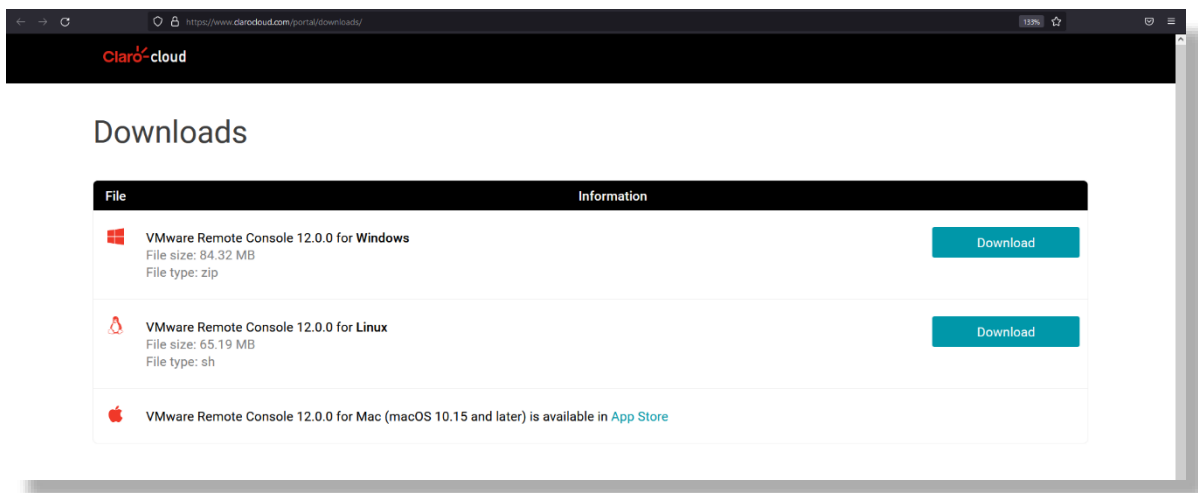
15. The following console will be deployed through which it is possible to access the virtual machine:



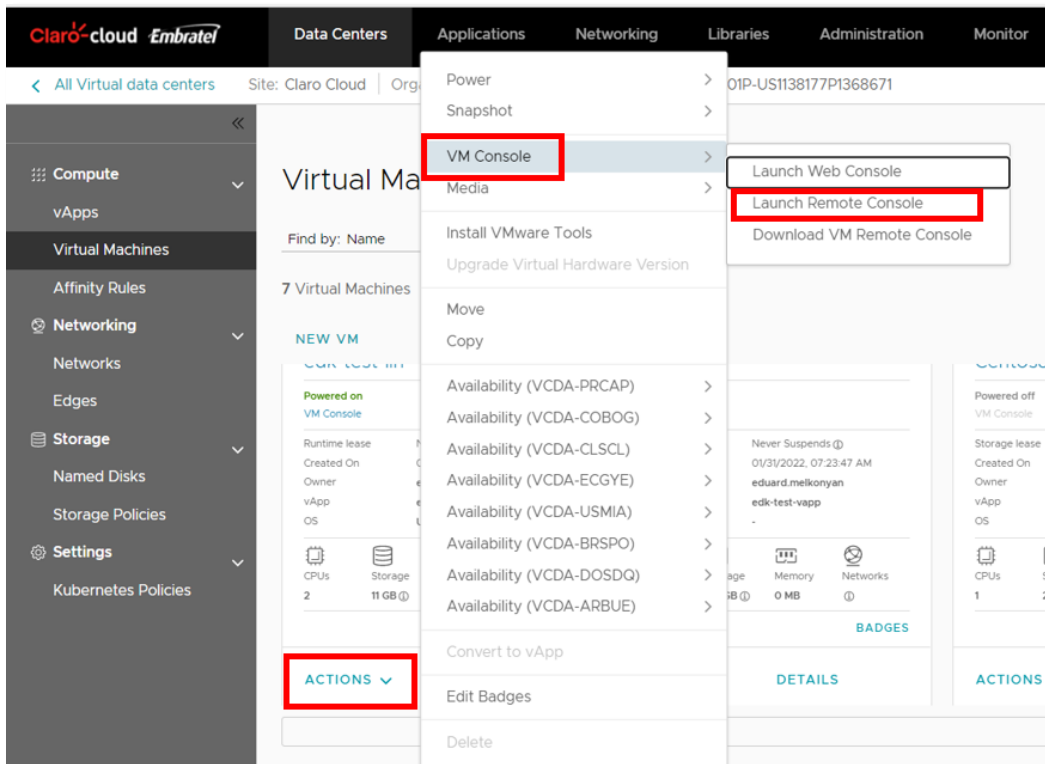
16. You can also enter your virtual machine through a remote console, which will require you to install an application, which you can download in the "Virtual machine console" option and then in "Download VM Remote Console"



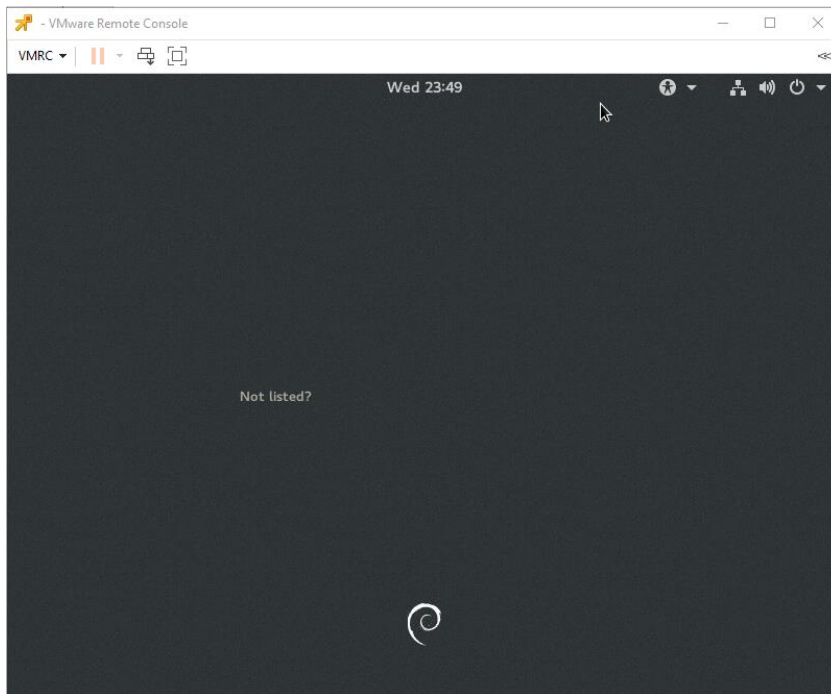
Clicking will open an alternate web page where you can download the application suitable to your computer's operating system



- At the completion of the download, return to the Enterprise Claro Cloud control panel, click "Actions" within the virtual machine box, select "Virtual Machine Console" and then "Launch Remote Console".



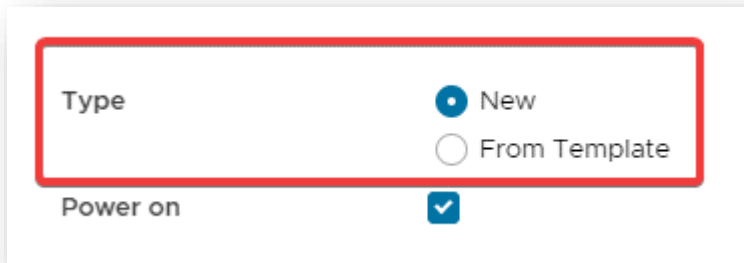
18. The VMware Remote Console application will open, where you can enter your virtual machine



Create a Virtual Machine from a custom image

To be able to create a virtual machine with this option you must create the private catalog beforehand, see the Section Creating Private Catalog

1. Perform the first 5 steps just like in the [Virtual Machine Creation process from the Public Catalog.](#)
2. Select in the "Type" field the "New" option



3. The following options will be displayed:

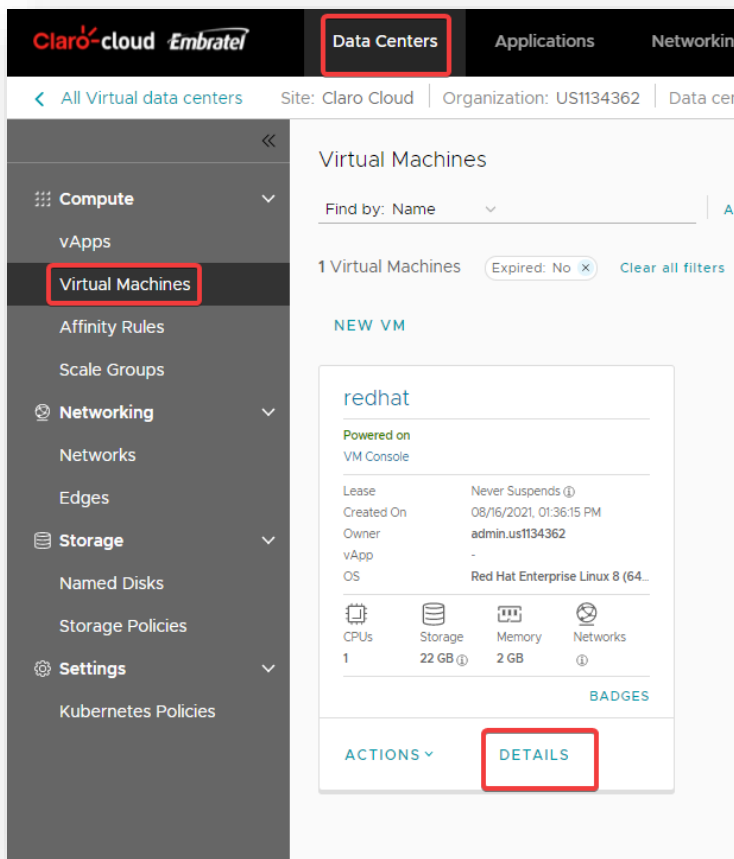
Item	Description
OS Family	Choose the operating system family to which the image to be deployed belongs
Operating system	Specify the operating system version to deploy. For Linux, if the desired option does not exist, select Other Linux
Boot image	Select the ISO image that has previously been uploaded to the catalog

4. Continue from step 9 of the [virtual machine creation process from the public catalog](#)

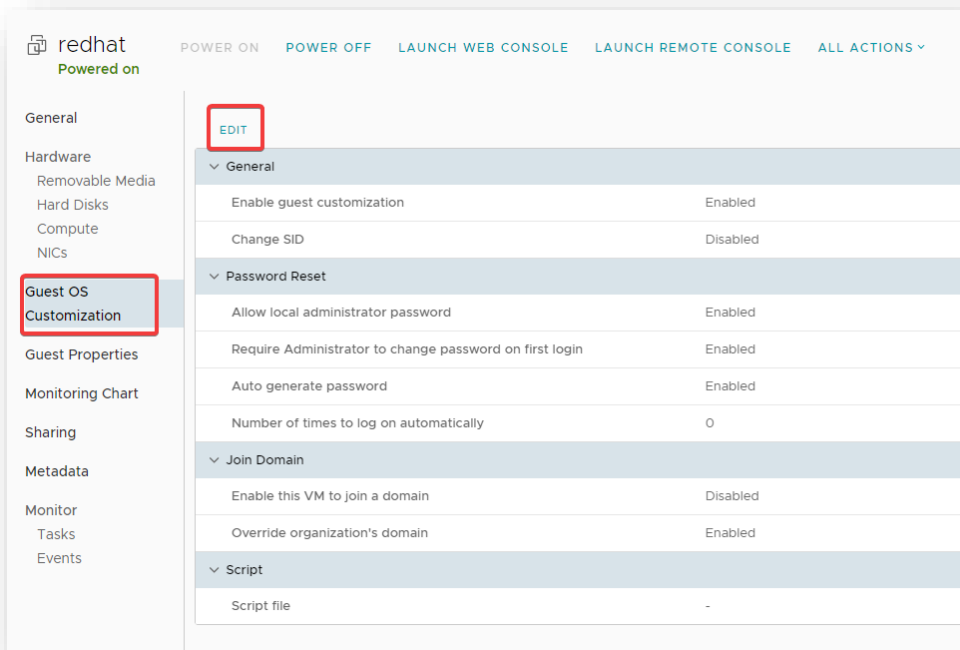
First access to a virtual machine

To access for the first time, a default password is generated, which you can find through the following steps:

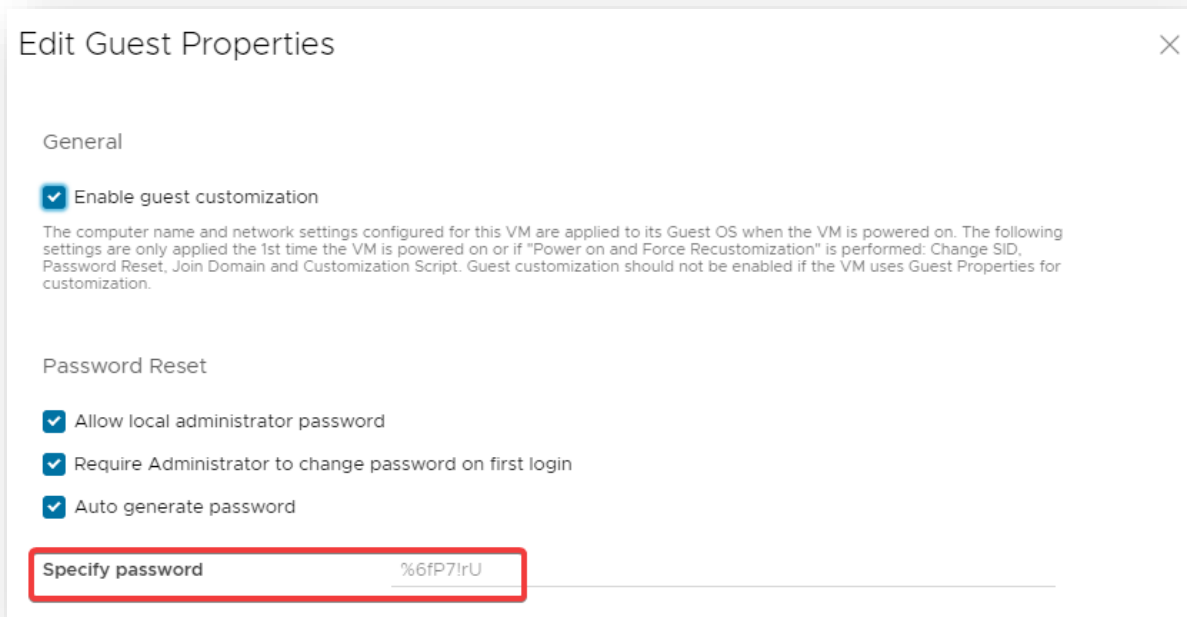
1. Select the virtual machine and click Details.



2. Go to Guest OS Customization and click Edit



3. The default password is located in the Specify Password field



Edit Guest Properties

General

☒ Enable guest customization

The computer name and network settings configured for this VM are applied to its Guest OS when the VM is powered on. The following settings are only applied the 1st time the VM is powered on or if "Power on and Force Recustomization" is performed: Change SID, Password Reset, Join Domain and Customization Script. Guest customization should not be enabled if the VM uses Guest Properties for customization.

Password Reset

☒ Allow local administrator password

☒ Require Administrator to change password on first login

☒ Auto generate password

Specify password %6fP7lrU

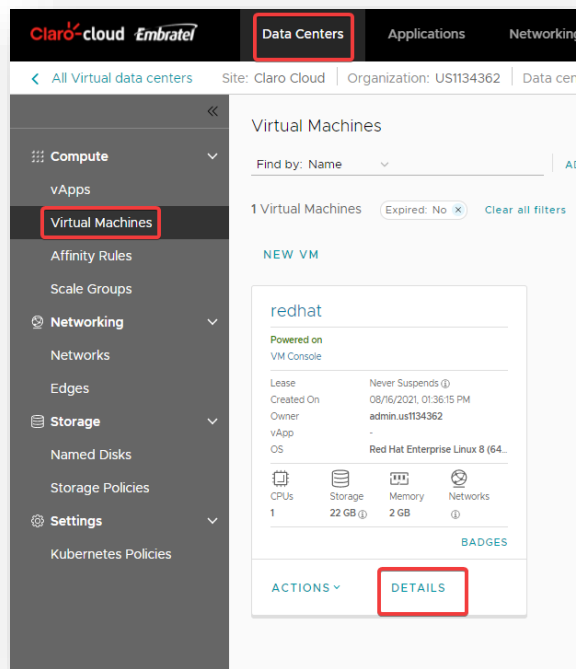
Important: It is advisable not to clear this password manually. At the time of first entering the virtual machine, the operating system will request the password change.

Edit properties of a virtual machine

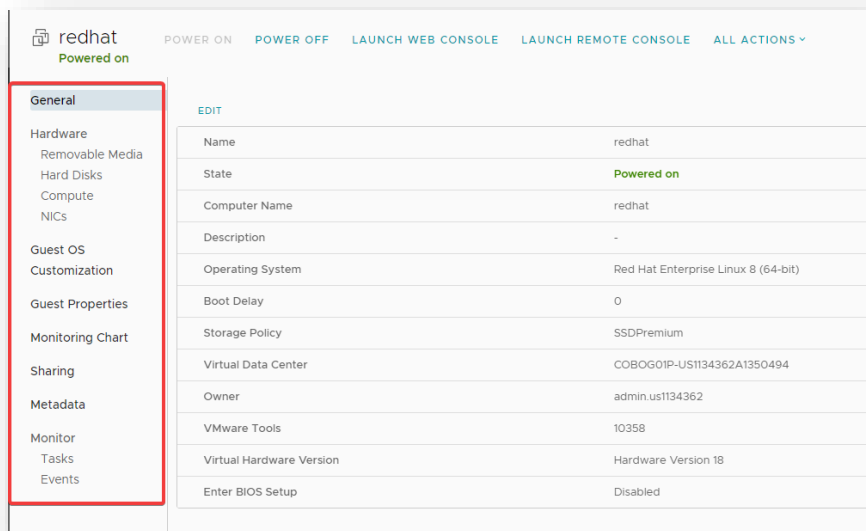
In this section you can view the main features of your virtual machines such as hostname, description, and other properties of a virtual machine.

To change certain properties as an operating system, the virtual machine will be required to be powered off.

1. In the Datacenter pane, click Virtual Datacenter, and from the menu on the left select Virtual Machines
2. Select the virtual machine to edit and then Details



3. The following options described below will appear:



Item	Description
General	Properties such as virtual machine name and operating system family
Hardware	Properties of compute, storage, and network resources

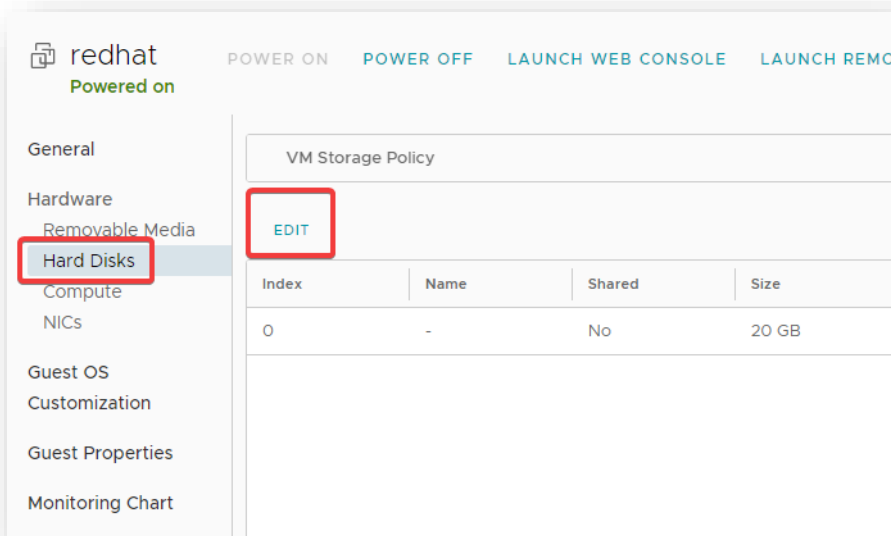
Guest OS Customization	Configurations about the operating system such as SID, passwords, domains, use of boot scripts
Monitoring chart	Disk, CPU, and memory usage metrics
Metadata	Additional tag-based information about the virtual machine
Tasks	Tasks performed on the platform, states, initiator, start and end time, among others
Events	Important events about the platform

Configuring Hard Drives

In this section, you can access disk configuration, expand disks, and add new disks to the virtual machine.

Increasing the capacity of a hard disk

1. Within the panel of a virtual machine, select in the submenu the option "Hard Disks" and click on "Edit"



2. The following screen will be displayed where you can increase the capacity of your hard drives

Edit Hard Disks for redhat

⚠ Some hard drive properties cannot be modified while the virtual machine is powered on

ADD

Index	Name	Shared	Size	Policy	IOPS	Bus Type	Bus Number	Unit Number	
0	-	No	20 GB	VM default p	Not Applicable	Paravirtual (S	0	0	

DISCARD SAVE

Important: It is not possible to decrease the capacity of a hard disk.

Create a new Hard Drive

1. Within the panel of a virtual machine, select in the submenu the option "Hard Disks" and click on "Edit"

ClaroCloud Embratel Data Centers Applications Networking Libraries Administration Monitor More

< All Virtual data centers Site: Claro Cloud Organization: US1138177 Data center: USMIA01P-US1138177P1368671

All vApps > edk-test-vapp > edk-test-lin

edk-test-lin Powered on POWER ON POWER OFF LAUNCH WEB CONSOLE LAUNCH REMOTE CONSOLE ALL ACTIONS

General VM Storage Policy SSDPremium

Security Tags

Hardware **EDIT**

Removable Media

Hard Disks

Compute

NICs

Guest OS

Customization

Index	Name	Shared	Size	Policy	IOPS	Bus Type	Bus Number	Unit Number	
0	-	No	10 GB	VM default policy	0	Paravirtual (SCSI)	0	0	

2. The following screen will be displayed, click on "Add"

Edit Hard Disks for edk-test-lin

⚠ Some hard drive properties cannot be modified while the virtual machine is powered on

ADD

Index	Name	Shared	Size	Policy	IOPS	Bus Type	Bus Number	Unit Number	
0	-	No	10 GB	VM def	Not Applicable	Paravirtual (SCSI)	0	0	

DISCARD SAVE

3. Enter the information for the new hard drive. When finished, click "Save"

Edit Hard Disks for edk-test-lin

⚠ Some hard drive properties cannot be modified while the virtual machine is powered on

ADD

Index	Name	Shared	Size	Policy	IOPS	Bus Type	Bus Number	Unit Number
0	-	No	10 GB	VM def	Not Applicable	Paravirtual (SCSI)	0	0

DISCARD SAVE

Important: For Windows Operating Systems it is necessary to choose in the Bus Type the option "Paravirtual".

All hard disks at the time of attachment to the virtual machine are added unformatted so it is the customer's responsibility to format them and mount them to the appropriate partition

Configuring Separate Hard Drives

Enterprise Claro Cloud allows you to create virtual disks independent of virtual machines, which can be used to increase the capacity of one or multiple virtual machines. The activation of this functionality can be requested through Claro Technical Support.

Note: Like hard disks associated with virtual machines, independent drives are created unformatted, so it is the customer's responsibility to give them the required format and mount them to the partition of their preference to be used in virtual machines

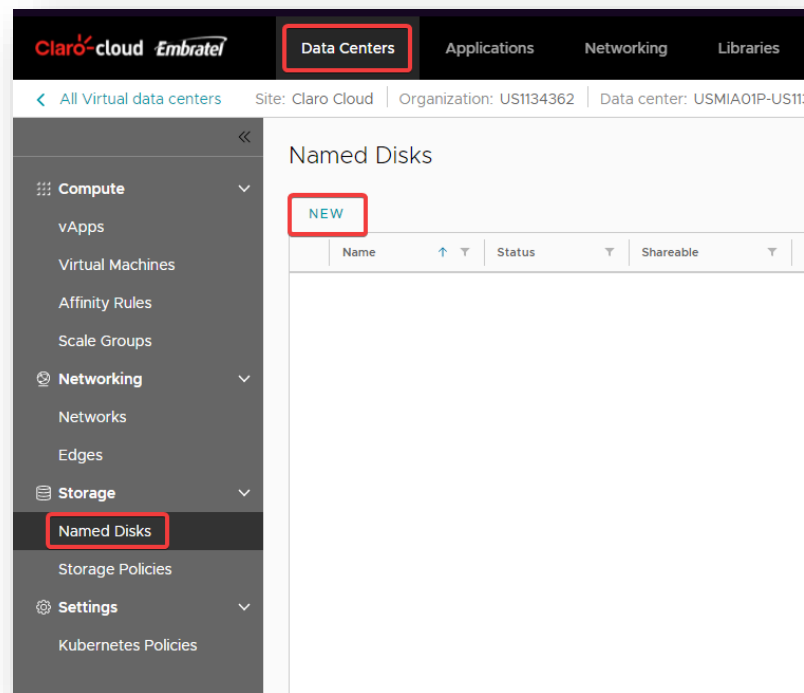
If you attach a named disk, you cannot take VM snapshots. If a shared disk is connected to a virtual machine, you cannot edit its hard disk settings from the virtual machine's details view.

If your organization's VDC has a storage policy with virtual machine encryption enabled, you can encrypt virtual machines and disks by associating them with storage policies that have virtual machine encryption capability.

Creating a separate disk

1. Verify that you have the appropriate administrator permissions to perform these tasks. Otherwise, they can be requested from Claro Technical Support through your Administrator.

2. In the main menu select "Data Center", then in the menu on the left, select "Named Disks", click "New"



3. The following screen will be displayed where you will have to enter the following information. When finished click the "Save" button

Item	Description
Name	Disk name
Description	Disc description
Storage Policy	Disk storage policy
Disk size	Disk capacity, can be specified in MB/GB
Bus type	Selecting bus to use SCSI (Recommended) / IDE / SATA / NVME
Bus subtype	Bus Subtype Parallel Buslogic SCSI Controller / Parallel LSI Logic SCSI Controller (Recommended) / LSI Logic SAS SCSI Controller / Paravirtual SCSI Controller (Recommended for Windows)
Shareable	When this option is selected the disk is allowed to be associated with more than one virtual machine

Create Named Disk

Name *

DB Disk

Description

Shared Backup Disk

Storage Policy *

SSDPremium

IOPS

Not Applicable

Size of Disk *

500 MB

Bus Type *

SCSI

Bus Sub-Type *

LSI Logic Parallel SCSI controller

Shareable

☒

When checked, the named disk created will be allowed to be attached to multiple VMs.

DISCARD

SAVE

- At the end of the creation process, select the created disk and click on the "Connect" button

Claro cloud Embratel

Data Centers

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Networking

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Administration

Monitor

More

Site: Claro Cloud

Organization: US1134362

Data center: USMIA01P-US1134362A1349477

Compute

vApps

Virtual Machines

Affinity Rules

Named Disks

NEW

EDIT

CHANGE OWNER

DELETE

ATTACH

DETACH

Name	Status	Shareable	Bus Type	Size of Disk	Storage Policy	IOPS	Owner	Attached VM Count
DB Disk		Yes	LSI Logic Parallel (SCSI)	500 MB	SSDPremium	0	faviol	0

- The following screen will open where you can select the virtual machine to which you will be presented with the hard disk

Attach Named Disk

⚠ VMs that are expired, busy, or in a unsupported state are not shown.

Virtual Machine

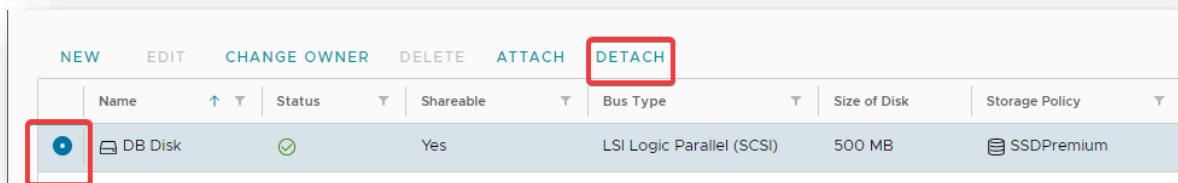
Select a virtual machine...

Name	VM container Name
reddcv1	reddcv1-d37ed336-15e7-4044-a6f6-c8d7cf8b7dbe
SQL19VPN	SQL19VPN-1af94b9f-991f-4863-a336-5ae16c4e5ad2
Testpriv2	Testpriv2-9231ce24-718e-4b86-ae4f-400fcbf36fca
winvpn	winvpn-4ab72697-6947-4124-8d2a-252212b3e6c2

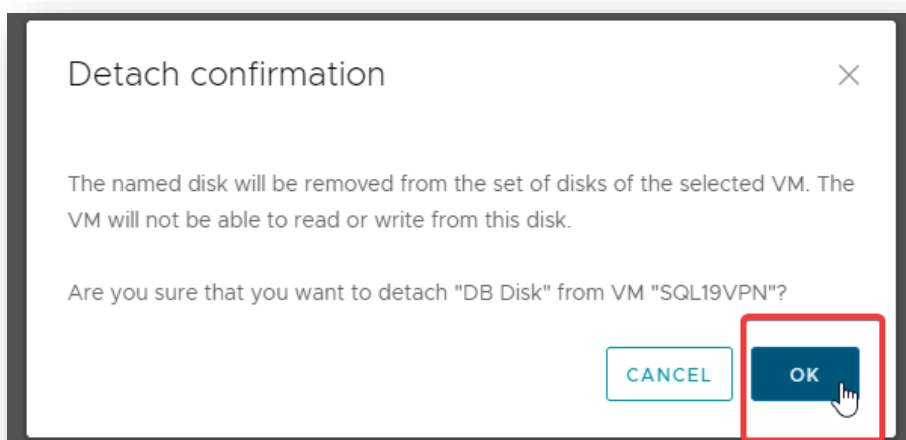
1 - 4 of 4 virtual machine(s)

Note: If you enable "shareable" check in step 3, you can connect more machines to the disk, repeating step 4 and 5.

6. If you need to disconnect a separate disk from a virtual machine, select the disk and click "Detach"



7. The following screen will open where you can select the virtual machine to which the hard disk will be disconnected, click on "OK" to finish the process



Resize an independent disk

Once the disk is created, you can modify its name, description, storage policy, and size. Consider that making any changes to the disk requires that it not be associated with any virtual machine.

1. In the main menu click on "Data Center", in the left menu select "Named Disks"



claro-cloud Embratel

Data Centers Applications Networking Libraries Administration

< All Virtual data centers Site: Claro Cloud Organization: US1134362 Data center: USMIA01P-US1134362A1349477

Named Disks

NEW EDIT CHANGE OWNER DELETE ATTACH DETACH

	Name	Status	Shareable	Bus Type
	DB Disk		Yes	LSI Logic Parallel (SCSI)

Compute

- vApps
- Virtual Machines
- Affinity Rules
- Scale Groups

Networking

- Networks
- Edges

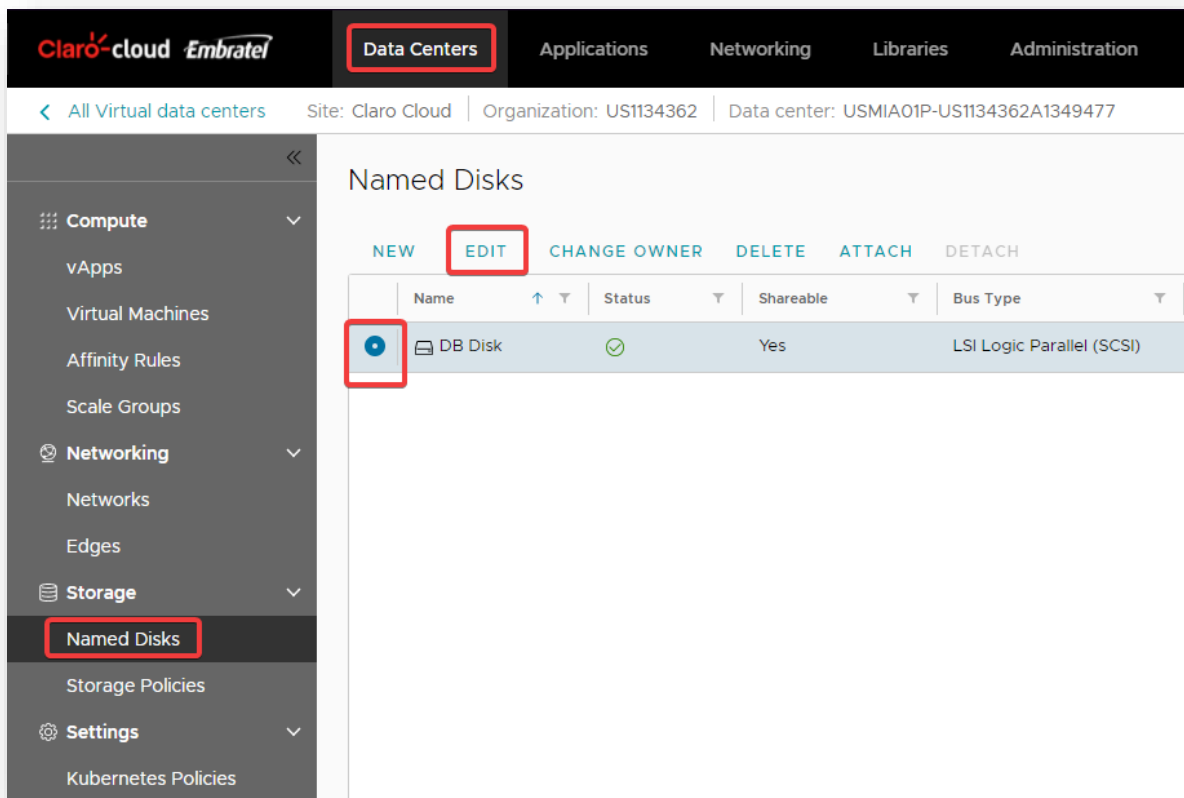
Storage

- Named Disks**
- Storage Policies

Settings

- Kubernetes Policies

2. Select the disk and click Edit



3. The next screen will open where you can modify the disk parameters. At the end of clicking on "Save"

Edit Named Disk

Name * DB Disk

Description Shared Backup Disk

Storage Policy * SSDPremium

IOPS 0

Size of Disk * 500 MB

Bus Type SCSI

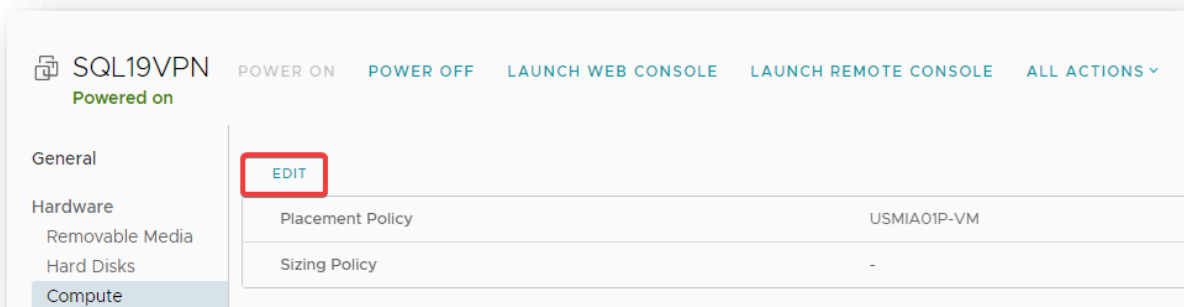
Bus Sub-Type LSI Logic Parallel SCSI controller

Shareable Yes

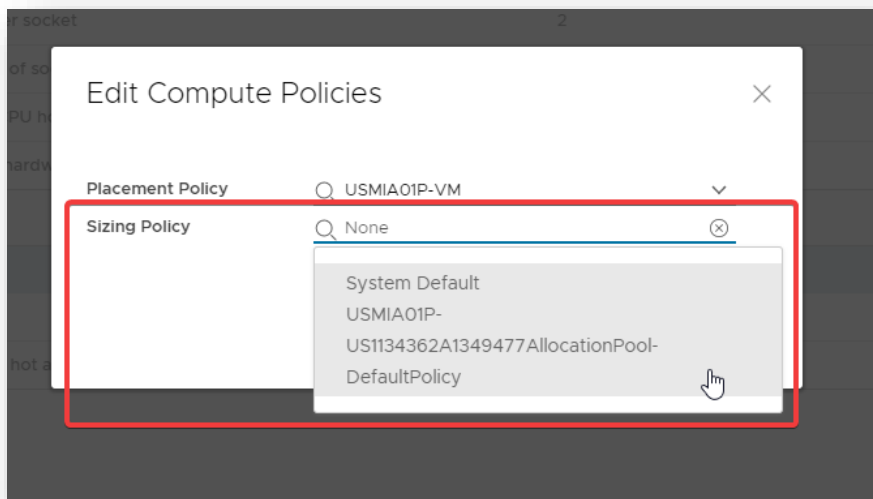
DISCARD SAVE

Changing the capacity of a virtual machine

1. Within the panel of a virtual machine, select the "Compute" option in the submenu and click "Edit" in the first table.



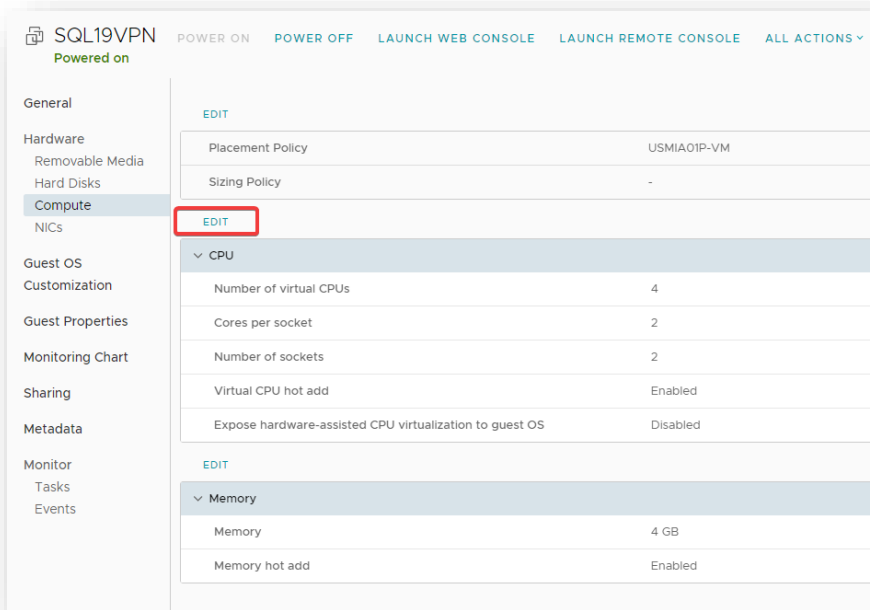
2. The following screen will be displayed, where you can choose the new size of your virtual machine



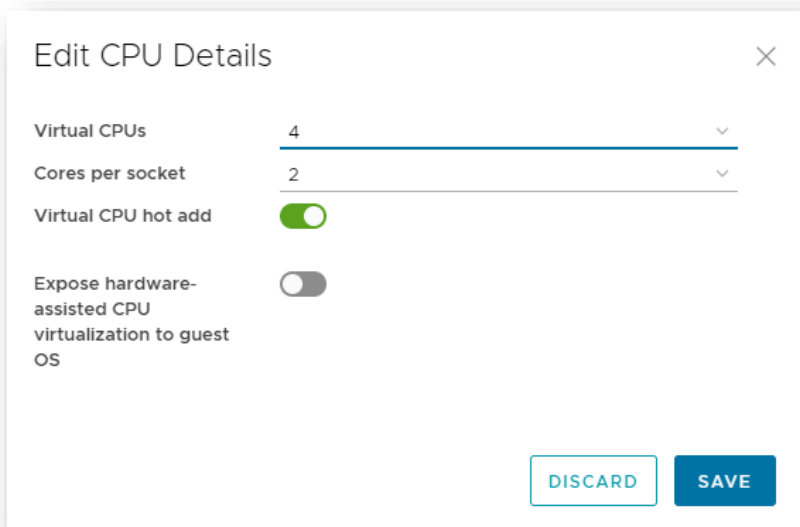
In case of choosing the "gp.custom" option, you can configure the size of your vCPU and RAM in a personalized way. Follow these steps

CPU configuration of a virtual machine:

1. Within the Compute section, select Edit in the CPU section.



2. Modify the required parameters and CPU distribution by sockets. At the end, click on "Save" to finish the configuration.



To modify the memory settings of a virtual machine:

1. Within the Compute section, select Edit in the Memory section.

SQL19VPN POWER ON POWER OFF LAUNCH WEB CONSOLE LAUNCH REMOTE CONSOLE ALL ACTIONS ▾

Powered on

General

Hardware

Removable Media

Hard Disks

Compute

NICs

Guest OS

Customization

Guest Properties

Monitoring Chart

Sharing

Metadata

Monitor

Tasks

Events

EDIT

Placement Policy	USMIA01P-VM
Sizing Policy	-

EDIT

▼ CPU

Number of virtual CPUs	4
Cores per socket	2
Number of sockets	2
Virtual CPU hot add	Enabled
Expose hardware-assisted CPU virtualization to guest OS	Disabled

EDIT

▼ Memory

Memory	4 GB
Memory hot add	Enabled

2. Allocate the required memory for the virtual machine. At the end, click on "Save" to finish the configuration.

Edit Memory Details

Memory 4 GB

Memory hot add ☒

DISCARD SAVE

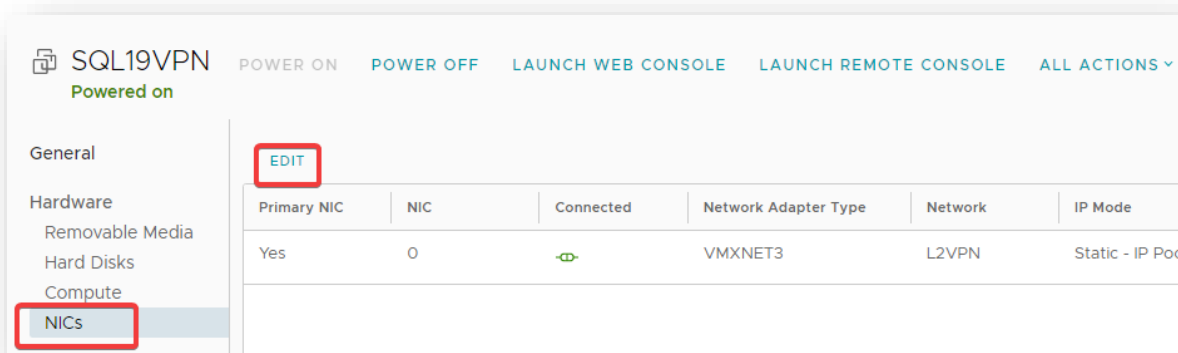
Important:

- By default, virtual machines have the Hot Add parameter active, which allows for hot adding of CPU and hot Memory resources from 4 vCPUs.
- For virtual machines smaller than 4 vCPUs or 4 GB of memory, you must shut down the virtual machine if you need to increment/decrease resources.
- For data centers with on-demand schemes, you can increase/decrease virtual machine capacity through predefined capacity templates or through custom sizes.
- For data centers with Resource Pool schemes, it is possible to increase/decrease the capacity of virtual machines only through custom sizes.

Configuring NICs

In this section you can modify the settings of the network cards assigned to the virtual machine.

1. Within the panel of a virtual machine, select the "NIC" option in the submenu and click "Edit" in the first table.



SQL19VPN POWER ON POWER OFF LAUNCH WEB CONSOLE LAUNCH REMOTE CONSOLE ALL ACTIONS ▾

Powered on

General

Hardware

Removable Media

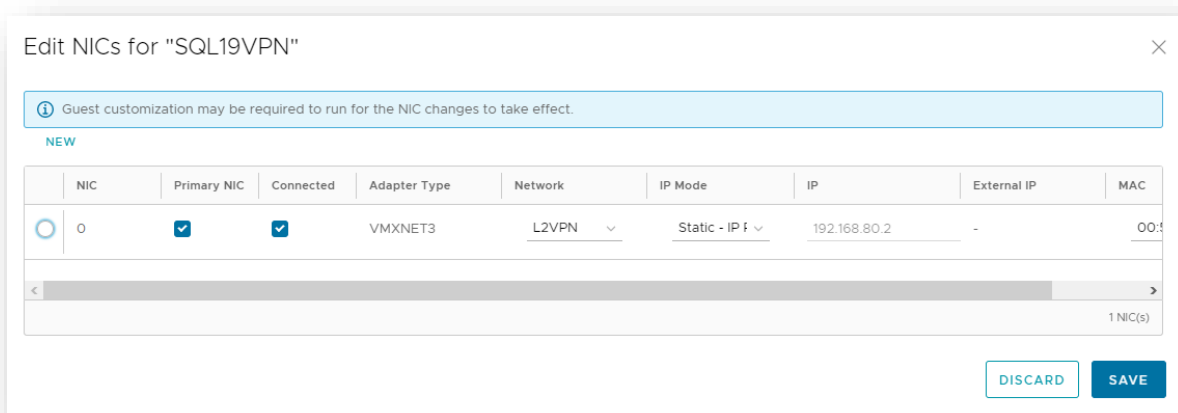
Hard Disks

Compute

NICs

Primary NIC	NIC	Connected	Network Adapter Type	Network	IP Mode
Yes	0	Connected	VMXNET3	L2VPN	Static - IP Pool

2. The following screen will appear where you can add a new NIC or modify an existing one:



Edit NICs for "SQL19VPN"

Guest customization may be required to run for the NIC changes to take effect.

NEW

NIC	Primary NIC	Connected	Adapter Type	Network	IP Mode	IP	External IP	MAC
0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	VMXNET3	L2VPN	Static - IP Pool	192.168.80.2	-	00:00:00:00:00:00

1 NIC(s)

DISCARD SAVE

3. Select the NIC to configure or click "New" to add a new NIC.

Edit NICs for "SQL19VPN"

Guest customization may be required to run for the NIC changes to take effect.

NEW

	NIC	Primary NIC	Connected	Adapter Type	Network	IP Mode	IP	External IP	MAC
	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	VMXNET3	L2VPN	Static - IP f	192.168.80.2	-	00:50:56:80:00:02

1 NIC(s)

DISCARD
SAVE

- Enter the following data to perform the NIC configuration. At the end, click "Save"

Item	Description
Primary NIC	Select the primary NIC of the virtual machine.
Connected	NIC status (Connected/Disconnected).
Network adapter type	Adapter type in the virtual machine E100E / SRIOVETHERNETCARD / VMXNET3 (Recommended)
Network	The network to which the NIC will connect. For the generation of a new network, see the section How to configure networks in Claro Cloud
IP Mode	Mechanism for IP assignment None / DHCP / Static – IP Address Pool (Recommended) / Manual Static
IP address	IP address of the network adapter
MAC Address	Physical address of the network adapter

Edit NICs for "SQL19VPN"

Guest customization may be required to run for the NIC changes to take effect.

NEW DELETE

	NIC	Primary NIC	Connected	Adapter Type	Network	IP Mode	IP	External IP	M
+	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	E1000E	None	None		-	
○	0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	VMXNET3	L2VPN	Static - IP	192.168.80.2	-	

2 NIC(s)

DISCARD SAVE

Note: In the event that the NIC at the Operating System level is not active, repeat step 1 and 2 by deselecting the "Connected" check and clicking "Save". Repeat step 1 and 2 but now enable the "Connected" check and click "Save"

Guest OS Customization

In this section you can configure basic operating system options, such as default generation of a password or forced assignment of a new password.

Reset the default password:

1. Within the control panel of a virtual machine, select the "Guest OS customization" option, click "Edit".

SQL19VPN **Powered on**

POWER ON POWER OFF LAUNCH WEB CONSOLE LAUNCH REMOTE CONSOLE ALL ACTIONS

General

Hardware

Removable Media

Hard Disks

Compute

NICs

Guest OS Customization

Guest Properties

Monitoring Chart

Sharing

Metadata

Monitor

Tasks

Events

EDIT

General

Enable guest customization Enabled

Change SID Enabled

Password Reset

Allow local administrator password Enabled

Require Administrator to change password on first login Enabled

Auto generate password Enabled

Number of times to log on automatically 0

Join Domain

Enable this VM to join a domain Disabled

Override organization's domain Enabled

Script

Script file -

2. The next screen will open, disable the check "Generate password automatically" and click "Save"

Edit Guest Properties

General

☒ **Enable guest customization**

The computer name and network settings configured for this VM are applied to its Guest OS when the VM is powered on. The following settings are only applied the 1st time the VM is powered on or if "Power on and Force Recustomization" is performed: Change SID, Password Reset, Join Domain and Customization Script. Guest customization should not be enabled if the VM uses Guest Properties for customization.

☒ **Change SID**

Applicable for Windows VMs and will run Sysprep to change Windows SID. On Windows NT, VMware Cloud Director uses Sidgen. Running sysprep is a prerequisite for completing domain join.

Password Reset

☒ **Allow local administrator password**

☒ **Require Administrator to change password on first login**

☒ **Auto generate password**

Specify password %7oGah3!

Number of times to log on automatically 0

Value of 0 will disable automatic log on as administrator.

Join Domain

☐ **Enable this VM to join a domain**

☐ **Use organization's domain**

☒ **Override organization's domain**

Domain Name

Username

Password

DISCARD **SAVE**

3. Edit the Guest OS Customization again, and enable the "Generate password automatically" check, click "Save".

Edit Guest Properties

General

☒ Enable guest customization
The computer name and network settings configured for this VM are applied to its Guest OS when the VM is powered on. The following settings are only applied the 1st time the VM is powered on or if "Power on and Force Recustomization" is performed: Change SID, Password Reset, Join Domain and Customization Script. Guest customization should not be enabled if the VM uses Guest Properties for customization.

☒ Change SID
Applicable for Windows VMs and will run Sysprep to change Windows SID. On Windows NT, VMware Cloud Director uses Sidgen. Running sysprep is a prerequisite for completing domain join.

Password Reset

☒ Allow local administrator password
☒ Require Administrator to change password on first login
☒ Auto generate password

Specify password %7oGah3!

Number of times to log on automatically 0
Value of 0 will disable automatic log on as administrator.

Join Domain

☐ Enable this VM to join a domain
☐ Use organization's domain
☒ Override organization's domain

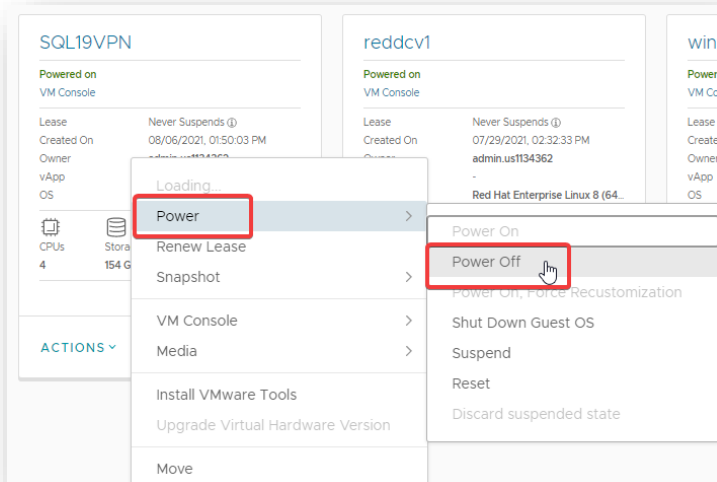
Domain Name

Username

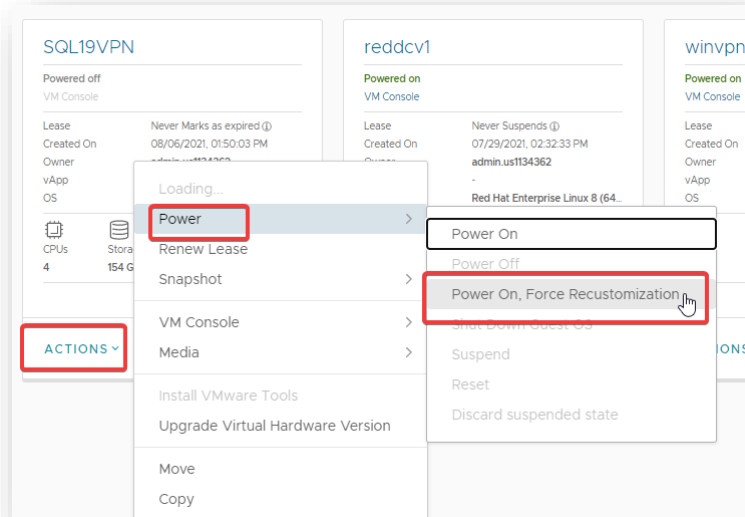
Password

DISCARD SAVE

- Shut down the virtual machine from the Power, Power Off option.



- Power on the virtual machine with the Power on, Force Recustomization option.

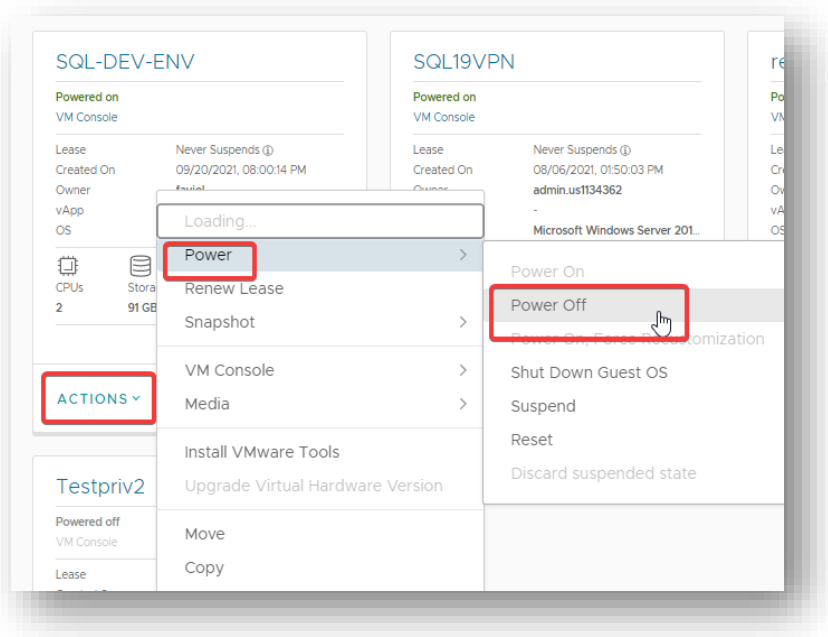


6. Within the control panel of a virtual machine, select again the option of "guest OS customization", click on "Edit", you will be able to display the new password of your virtual machine

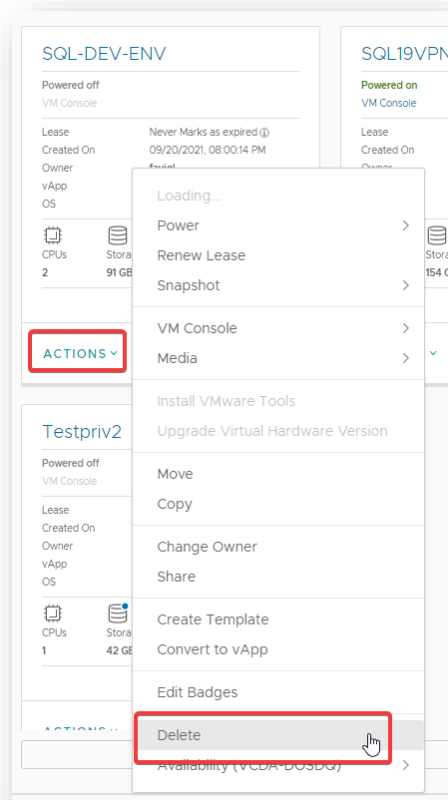
A screenshot of the 'Edit Guest Properties' dialog box in VMware Workstation. The 'General' tab is selected. Under 'Enable guest customization', the 'Change SID' checkbox is checked. Under 'Password Reset', the 'Allow local administrator password', 'Require Administrator to change password on first login', and 'Auto generate password' checkboxes are all checked. The 'Specify password' field is highlighted with a red box and contains the text '%7oGah3!'. Below this, there are fields for 'Number of times to log on automatically' (set to 0), 'Join Domain' (unchecked), 'Domain Name', 'Username', and 'Password'. At the bottom right, there are 'DISCARD' and 'SAVE' buttons.

Delete a virtual machine

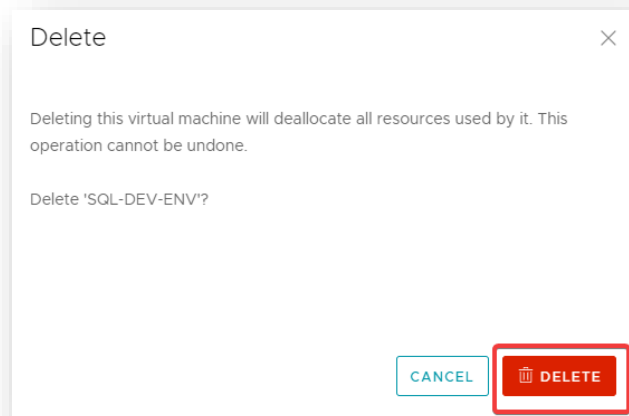
1. Shut down the virtual machine by clicking "Actions" / "Power" / "Power Off"



2. Once turned off, click "Actions" and then "Delete".



3. Confirm the action by clicking Delete to finish the process.

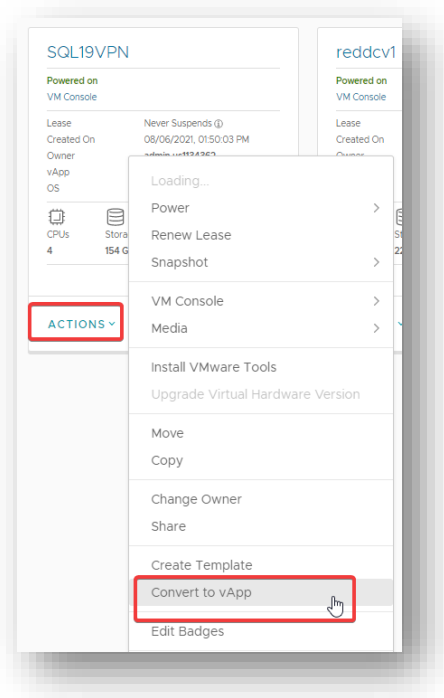


Important: If you try to delete a virtual machine that was connected to the network and has not been explicitly associated with a vApp, you may receive the following error message:

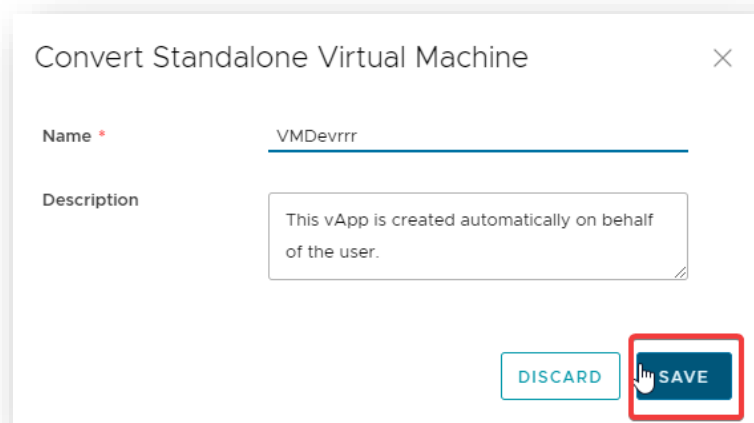
The requested operation could not be executed on vApp <VM Name>. Stop the vApp and try again.

Perform steps 4 through 9

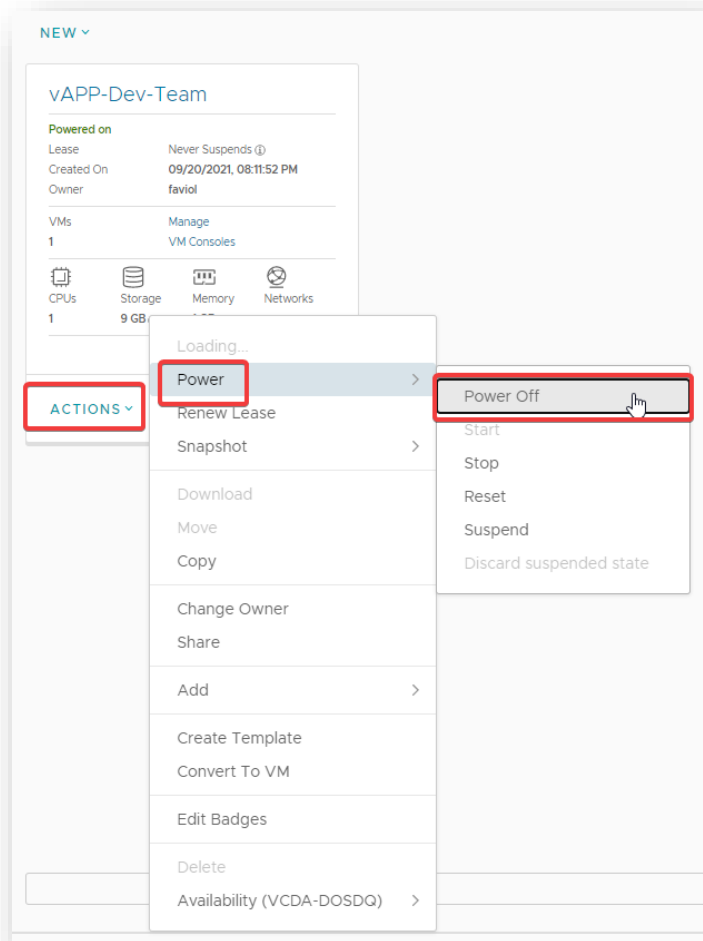
4. Select Actions on the virtual machine to delete and then the Convert to vApp option



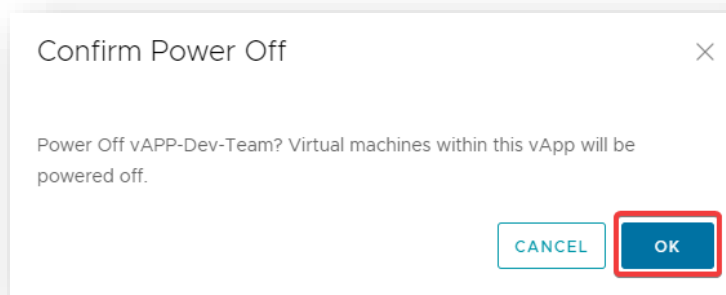
5. Assign a name to identify the vApp and press Save.



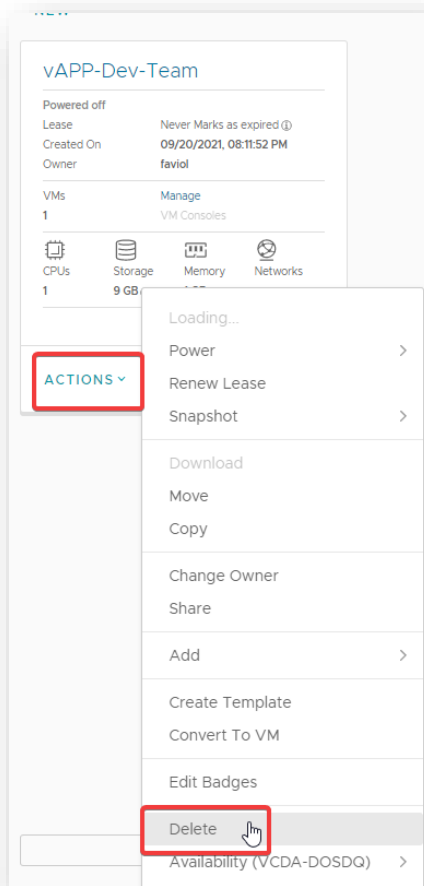
6. In the vApps section of your Data Center, you will find the newly created vApp. Select Actions for that vApp and then Power and Power Off.



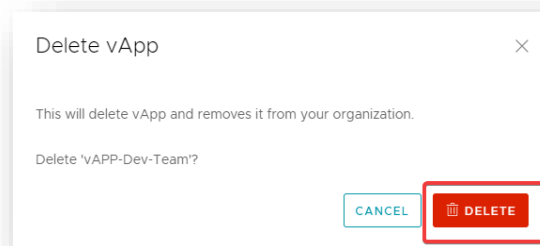
7. Press the OK button in the dialog box to confirm the action.



8. Select Actions again and then Delete.



9. Press Delete again in the dialog box to confirm the action and permanently remove the vApp and its associated virtual machine from your organization.



Copy a virtual machine to a different vApp

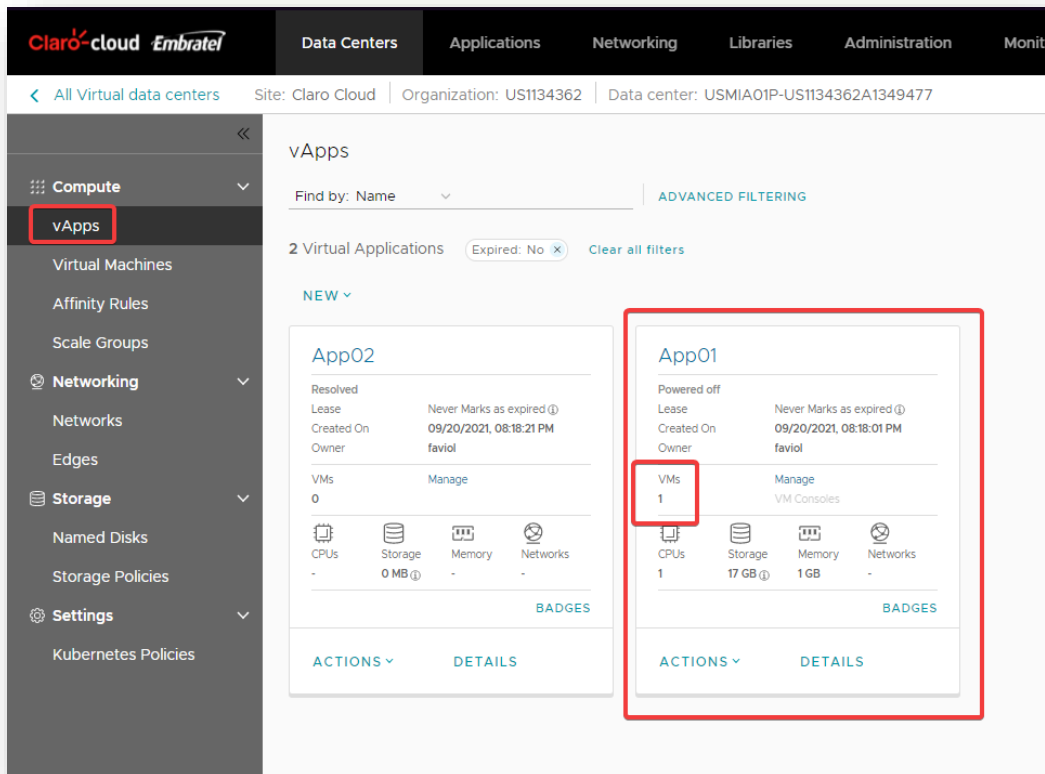
You can copy one virtual machine to another vApp.

When a virtual machine is copied:

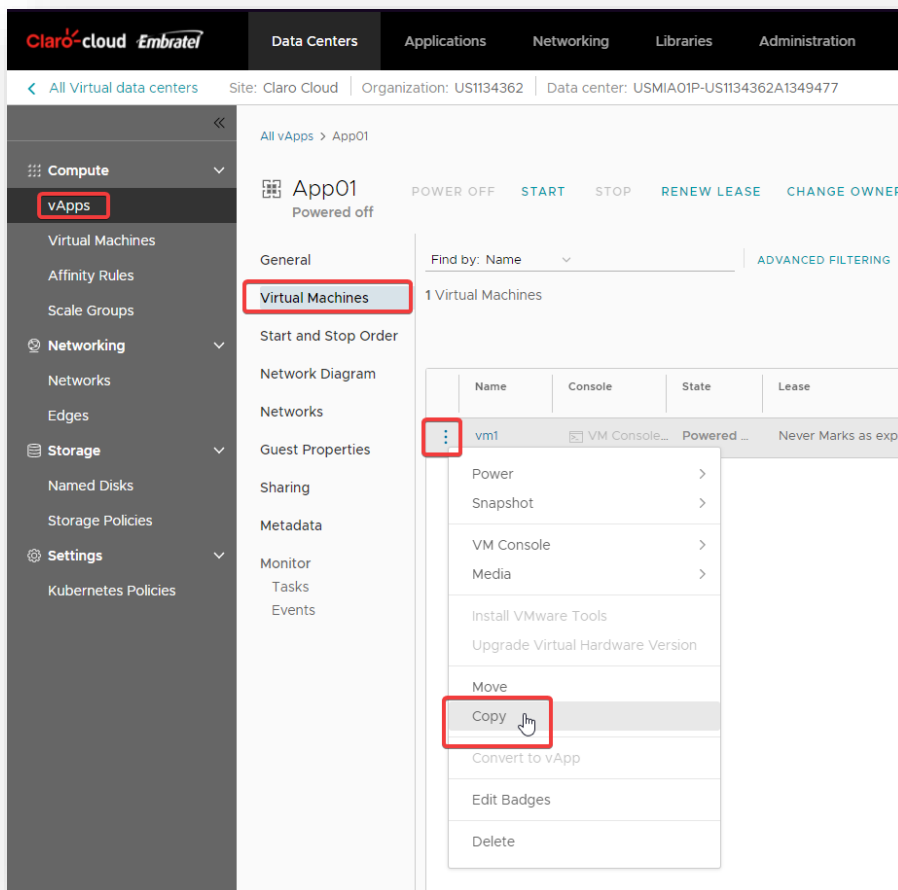
- The original virtual machine remains in the source vApp.
- Snapshots are not included.

Important: This operation can only be executed by the owner of the virtual machine or users with an "Organization Administrator" profile

1. From the Datacenter menu, vApps, select the vApp where the virtual machine you want to copy is located.



2. Click on the "Details" button and select the "Virtual Machines" option in the submenu. Click on the three-dot button of the machine you want to copy and click "copy".



3. The next screen will open where you can select the target vApp, by clicking "Next"

Copy Virtual Machine vm1

1 Select Destination vApp
2 Configure Resources
3 Ready to Complete

Select Destination vApp
Snapshots of the virtual machines in this vApp are not included in the copy.

	Name	State	Expired	VMs	Owner	Created On	Share
<input type="radio"/>	TESTSQL	Powered on	No	1	admin.us11343...	6/28/21, 12:00 P...	-
<input type="radio"/>	testpass	Powered on	No	2	admin.us11343...	7/29/21, 9:50 AM	-
<input type="radio"/>	testgrafana	Powered ...	No	1	admin.us11343...	7/29/21, 4:15 PM	-
<input type="radio"/>	test	Powered on	No	11	admin.us11343...	8/4/21, 4:15 PM	-
<input type="radio"/>	prueba4	Powered on	No	3	admin.us11343...	8/26/21, 11:30 AM	-
<input type="radio"/>	OpenVPN	Powered on	No	1	admin.us11343...	8/20/21, 8:51 AM	-
<input type="radio"/>	newtest	Powered on	No	3	admin.us11343...	8/31/21, 11:32 PM	-
<input type="radio"/>	DokuApp	Powered ...	No	1	faviol	8/18/21, 2:31 PM	-
<input type="radio"/>	Clster-01	Powered on	No	3	faviol	8/18/21, 3:24 PM	-
<input type="radio"/>	Cassandratest	Powered ...	No	1	system	7/29/21, 3:54 PM	-
<input type="radio"/>	awingu	Powered on	No	1	admin.us11343...	7/29/21, 7:54 PM	-
<input checked="" type="radio"/>	App02	Resolved	No	0	faviol	9/20/21, 8:18 PM	-
<input type="radio"/>	App01	Powered ...	No	1	faviol	9/20/21, 8:18 PM	-
<input type="radio"/>	AMXTEST	Powered ...	No	2	admin.us11343...	7/12/21, 10:04 A...	-

CANCEL
NEXT

- Validate the preloaded parameters "Configure Resources" page, and if necessary adjust the parameters. Click "Next"

Copy Virtual Machine vm1

1 Select Destination vApp
2 Configure Resources
3 Ready to Complete

Configure Resources

Name *
vm1-copy
Computer Name *
vm1-copy
Storage Policy *
SSDPremium

NICs
ADD VAPP NETWORK

Primary NIC	NIC	Connected	Network Adapter Type	Network	IP Mode	IP Address	MAC Address
<input checked="" type="radio"/>	0	<input type="checkbox"/>	VM	Noi	Noi		00:0C:29:15:5D:00

CANCEL
BACK
NEXT

5. Check the summary of the operation, and press "Done" to finish the process.

The screenshot shows a dialog box titled 'Copy Virtual Machine vm1' with a close button (X) in the top right corner. On the left, there is a vertical list of steps: '1 Select Destination vApp', '2 Configure Resources', and '3 Ready to Complete' (which is highlighted). The main area of the dialog is titled 'Ready to Complete' and contains a summary of the operation. It lists various properties and their values, including Name (App02), Description, Owner (faviol), Virtual data center (USMIA01P-US1134362A1349477), Runtime lease (0 Seconds), Runtime lease expiration (9/20/21, 8:22 PM), Storage lease (0 Seconds), Storage lease expiration (9/20/21, 8:22 PM), Networks - 0, and VM. Below this, there is a table with three rows: 'Virtual Machine' (vm1-copy), 'Guest OS' (Ubuntu Linux (64-bit)), and 'Storage Policy' (SSDPremium). At the bottom right, there are three buttons: 'CANCEL', 'BACK', and 'DONE' (which is highlighted with a red box).

Name	App02
Description	
Owner	faviol
Virtual data center	USMIA01P-US1134362A1349477
Runtime lease	0 Seconds
Runtime lease expiration	9/20/21, 8:22 PM
Storage lease	0 Seconds
Storage lease expiration	9/20/21, 8:22 PM
Networks - 0	
VM	

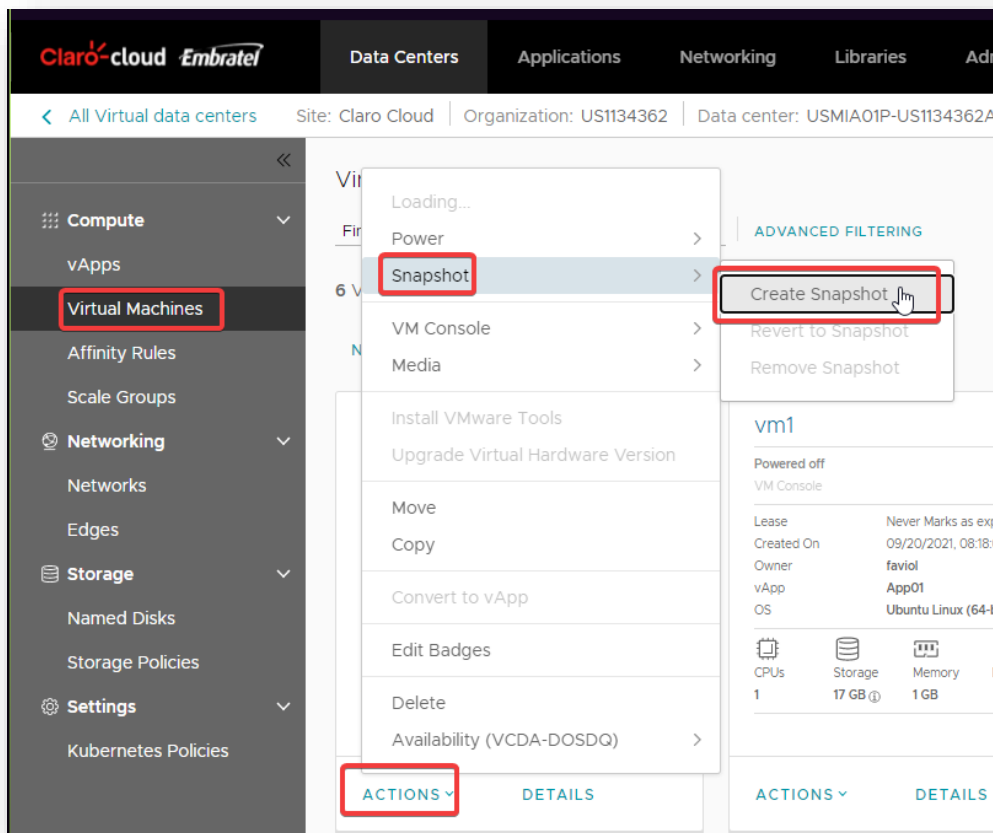
Virtual Machine	vm1-copy
Guest OS	Ubuntu Linux (64-bit)
Storage Policy	SSDPremium

Configure Snapshots

It is possible to take a snapshot of a virtual machine to future return the virtual machine to a previous state. It is not a substitute for a backup.

Important: Snapshots do not save NIC settings.

1. From the Datacenters menu, Virtual Machines, select the virtual machine from which you want to take a snapshot. Click on "Actions" / "Snapshot" / "Create Snapshot"

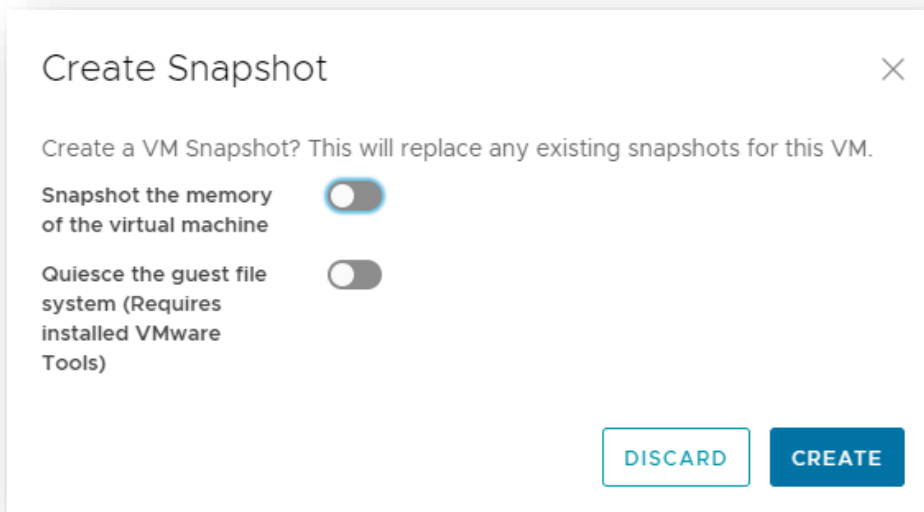


2. The following optional screen opens, with the following options

Item	Description
Take snapshot of virtual machine memory	<p>When the virtual machine memory state is captured, the snapshot retains the active state of the virtual machine. Snapshots created with memory take a snapshot at a precise time, for example, to update software that is still in operation. If you create a snapshot of memory and the update does not finish as expected, or if the software does not meet your expectations, you can revert to the previous state of the virtual machine.</p> <p>When memory state is captured, you do not need to idle the virtual machine files. If the memory state is not captured, the snapshot does not save the active state of the virtual machine, and the disks are fault-consistent unless they are put into idle mode.</p>
Put the guest file system into idle mode (requires VMware Tools be installed)	<p>For this operation, VMware Tools must be installed on the virtual machine. When you put a virtual machine into idle mode, VMware Tools puts the virtual machine's file system into idle</p>

	<p>mode. An inactive mode operation ensures that the snapshot disk represents a consistent state of the guest file systems. Snapshots in idle mode are suitable for automated or periodic backups. For example, if the activity of the virtual machine is unknown, but you want to have several recent backups for rollbacking, you can put the files into idle mode. Virtual machines that have large capacity disks cannot be put into idle mode.</p>
--	---

3. Click "Create" to finish.



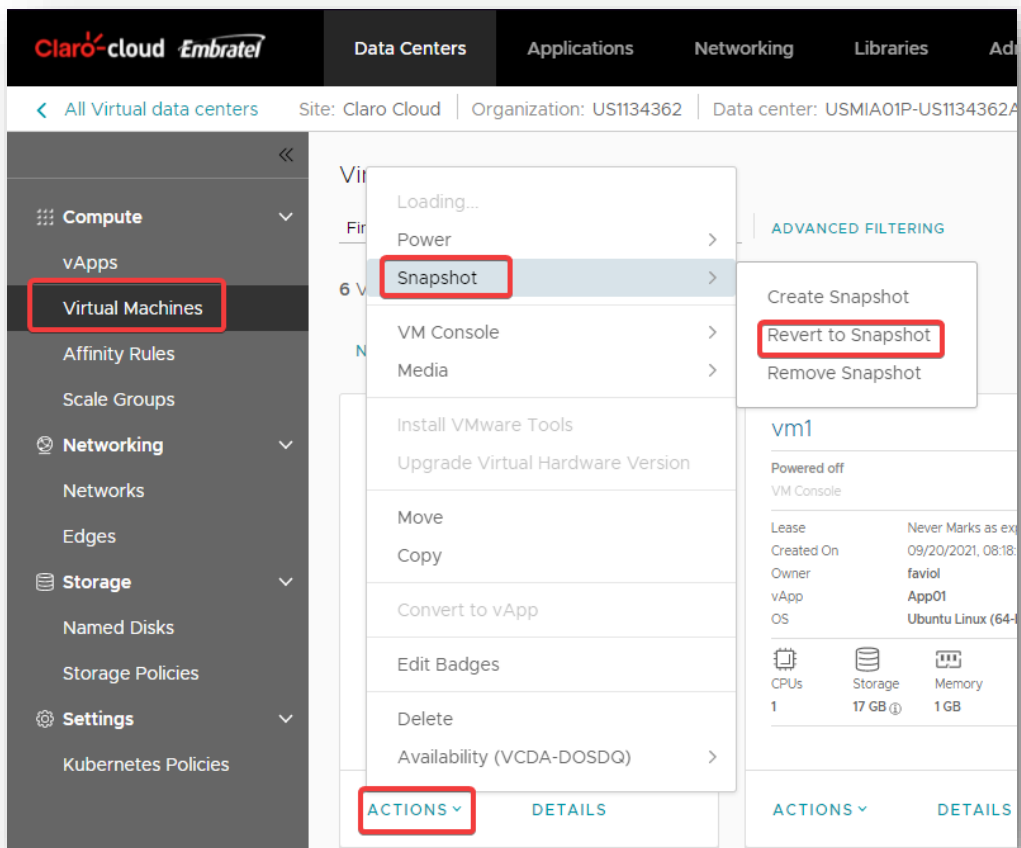
Important: Snapshots are not a Backup mechanism, therefore, it is not recommended to have Snapshots for more than 5 days on the platform, since this causes a growth in the delta disk and can overwhelm the capacity of the contracted storage.

Additionally, the larger the snapshot size, the more the performance of the virtual machine will be negatively affected. Therefore, it is recommended that the snapshot be deleted once the activity for which it was taken has been performed.

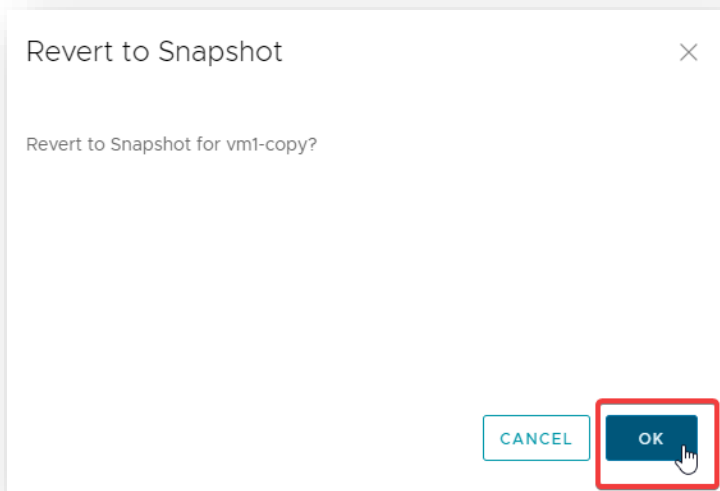
Revert a virtual machine to a snapshot

You can restore a virtual machine to the state it was in when the snapshot was created.

1. In the main panel select Data Centers, Virtual Machines click on "Actions" / "Snapshot" / "Revert to Snapshot"



2. The following pop-up window will be displayed, click "OK".



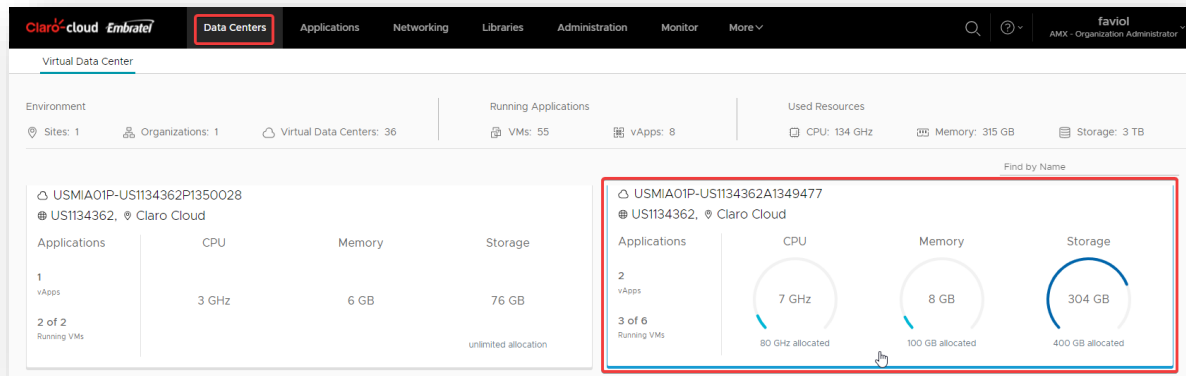
7. Working with vApps

Creating a vApp

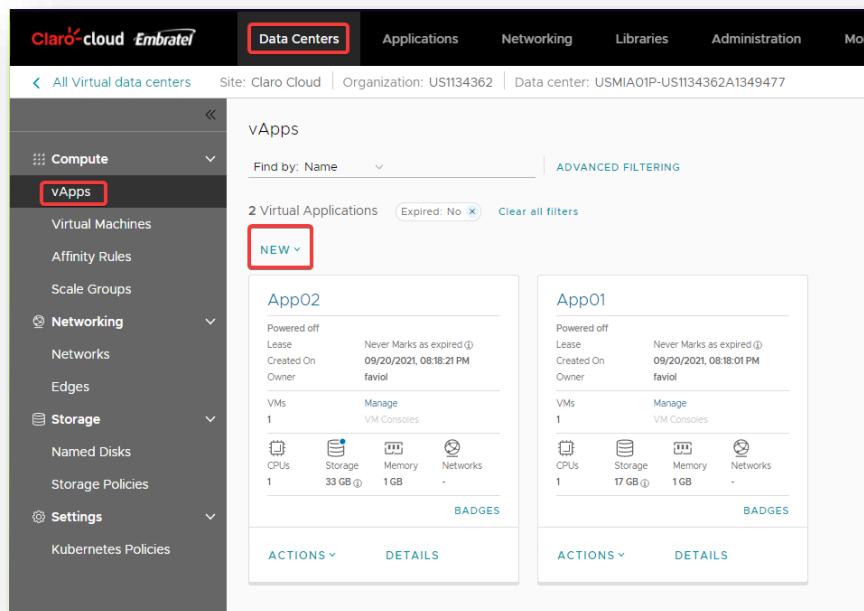
Enterprise Claro Cloud allows you to create a logical entity consisting of one or more virtual machines, which use the OVF/OVA format to specify and encapsulate all the components of a multilevel application, as well as the policies and service levels associated with it.

To create a vApp, follow these steps:

1. Select in the datacenter in which the VApp will be deployed.



2. Select vApp from the left menu, then New.



3. You will be asked to enter the following data:

Item	Description
------	-------------

Name	The name by which the vApp will be identified in the VDC. (Required field).
Description	Field to assign a label which describes the vApp (Optional).
Power on	Button to select whether the VMs to be associated in the vApp are deployed powered on or not.
Add Virtual Machine	Button to start assigning VMs to the vApp.

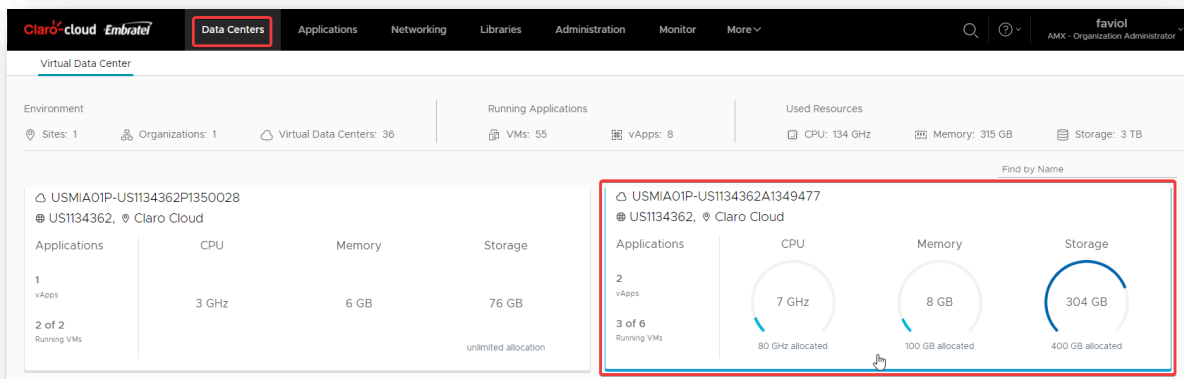
- Clicking on the "Add Virtual Machine" button will prompt you to enter the characteristics of the VMs that will be associated with the vApp. To do this follow the steps in the section [Create a virtual machine from the public catalog](#)
- Once all the VMs to be deployed in the vApp are associated, the create button is enabled.

Create a vApp from an OVF/OVA package.

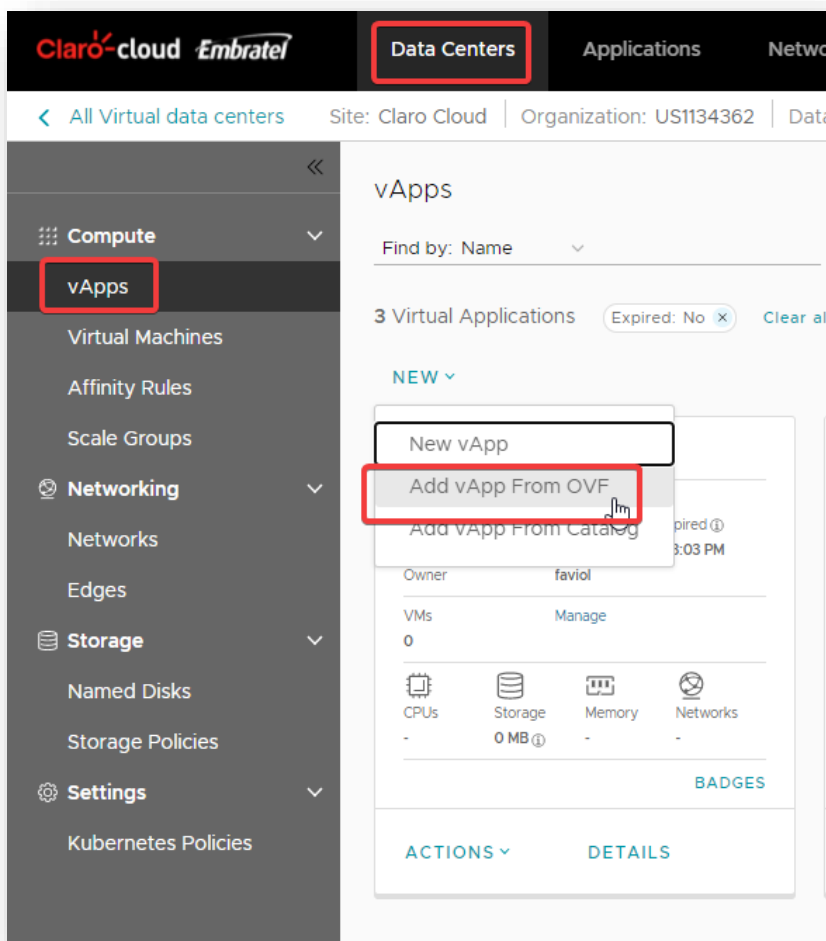
Enterprise Claro Cloud supports the Open Virtualization Format (OVF) and Open Virtualization Appliance (OVA) specifications. They can be uploaded to create vApp templates through a private catalog. If the uploaded OVF file includes OVF properties, those properties are preserved in the vApp template.

Note: This operation can be executed by users under the role organization administrator

- Select in the datacenter in which the VApp will be deployed.



2. Select in the left menu vApp, then Add vApp.



3. The following screen will open, click "Browse" to search for the file on your computer, click "Next".

Create a vApp from an OVF file

1 Select Source

2 Review Details

3 Select vApp Name

4 Configure Resources


5 Customize Hardware


6 Ready to Complete

Select Source

Browse to a location accessible from your computer, such as a local hard drive, a network share or a CD/DVD drive and select an OVF/OVA and all related files.

Browse





File(s):
No selected file or No file is selected.

4. The step of reviewing details is enabled, in this option it indicates the size of the OVF / OVA that will be used to deploy the VM, as well as the size of the disks, click on "Next".

Create a vApp from an OVF file

1 Select Source

2 Review Details

3 Select vApp Name

4 Configure Resources

5 Configure Networking

6 Custom Properties

7 Customize Hardware

8 Ready to Complete

Review Details

Verify the OVF template details.

Product	Dummy-fb-Core01
Version	-
Vendor	-
Download size	174.68 MB
Size on disks	23.38 MB (thin provisioned) 8 GB (thick provisioned)
Description	-

CANCEL

PREVIOUS

NEXT

5. Select the name of the vApp and its description, click "Next".

Create a vApp from an OVF file

1 Select Source

2 Review Details

3 Select vApp Name

4 Configure Resources

5 Configure Networking

6 Custom Properties

7 Customize Hardware

8 Ready to Complete

Select vApp Name

A vApp is a cloud computer system that contains one or more virtual machines. Select a name and a description for this vApp.

Name *

Dummy-fb-Core01

Description

CANCEL

PREVIOUS

NEXT

6. Configure the resources, in this step the assignment of the storage policy to be used by the VM is made, click on "Next".

Create a vApp from an OVF file

1 Select Source

2 Review Details

3 Select vApp Name

4 Configure Resources

5 Configure Networking

6 Custom Properties

7 Customize Hardware

8 Ready to Complete

Configure Resources

Select the Storage Policies that you want the deployed virtual machines of this vApp to use.

Virtual Machine	Computer Name	Storage Policy
Dummy-fb-Core01	Dummy-fb-Core01	SSDPremium ▾

CANCEL

PREVIOUS

NEXT

7. Configure the networks to be used in the vApp, click next.

Create a vApp from an OVF file

1 Select Source

2 Review Details

3 Select vApp Name

4 Configure Resources

5 Configure Networking

6 Custom Properties

7 Customize Hardware

8 Ready to Complete

Configure Networking

Select the networks to which you want each virtual machine to connect. You can configure additional properties for virtual machines after you complete this wizard.

☐ Switch to the advanced networking workflow

Virtual Machines	Primary NIC	Network
Dummy-fb-Core01	<div><div></div>NIC 0</div>	custom <div></div> IP Pool

CANCEL

PREVIOUS

NEXT

Note: On this screen you can enable the option "Switch to Advanced Networking Workflow" which allows you to select the type of network adapter, network, IP mapping.

If your application requires downloading packages from external repositories, make sure that the network to be mapped in the NIC is of type Routed with Internet access, validate the chapter [Configuring a network in Enterprise Claro Cloud](#)

- Custom property settings, apply if your .OVA /.OVF file requires additional configurations. If not required, click next.

Create a vApp from an OVF file

1 Select Source

2 Review Details

3 Select vApp Name

4 Configure Resources

5 Configure Networking

6 Custom Properties

7 Customize Hardware

8 Ready to Complete

Custom Properties

There are no user configurable properties.

CANCEL

PREVIOUS

NEXT

9. Customize hardware, select the compute characteristics for the VM, at the level of vCPU, number of sockets, RAM, click "Next".

Create a vApp from an OVF file

1 Select Source

2 Review Details

3 Select vApp Name

4 Configure Resources

5 Configure Networking

6 Custom Properties

7 Customize Hardware

8 Ready to Complete

Customize Hardware

Review the hardware of the virtual machines in this vApp

Virtual Machine	Compute and Memory
Dummy-fb-Core01	<div>Number of virtual CPUs</div> <div>1</div> <div>Cores per socket</div> <div>1</div> <div>Number of sockets</div> <div>Total Memory</div> <div>512 MB</div>

1 item(s)

CANCEL

PREVIOUS

NEXT

10. Summary of your configuration will be displayed, click "Finish".

Create a vApp from an OVF file

- Select Source
- Review Details
- Select vApp Name
- Configure Resources
- Configure Networking
- Custom Properties
- Customize Hardware
- Ready to Complete

Ready to Complete

You are about to create a vApp with these specifications. Review the settings and click finish.

OVF file

Dummy-fb-Core01.mt, Dummy-fb-Core01.ovf, Dummy-fb-Core01-disk1.vmdk, Dummy-fb-Core01-file1.iso

Name

Dummy-fb-Core01

Description

-

Owner

-

Virtual data center

USMIA01P-US1134362A1349477

Runtime lease

-

Runtime lease expiration

-

Storage lease

-

Storage lease expiration

-

Networks

custom

VMs

Virtual Machine	Storage Policy	CPU	Cores per socket	Memory
Dummy-fb-Core01	SSDPremium	1	1	512 MB

CANCEL

PREVIOUS

FINISH

Create a vApp from Catalog

- Select in the datacenter in which the VApp will be deployed.

Claro cloud Embratel

Data Centers

Applications

Networking

Libraries

Administration

Monitor

More

Virtual Data Center

Environment

Sites: 1

Organizations: 1

Virtual Data Centers: 36

Running Applications

VMs: 55

vApps: 8

Used Resources

CPU: 134 GHz

Memory: 315 GB

Storage: 3 TB

Find by Name

USMIA01P-US1134362P1350028

US1134362, Claro Cloud

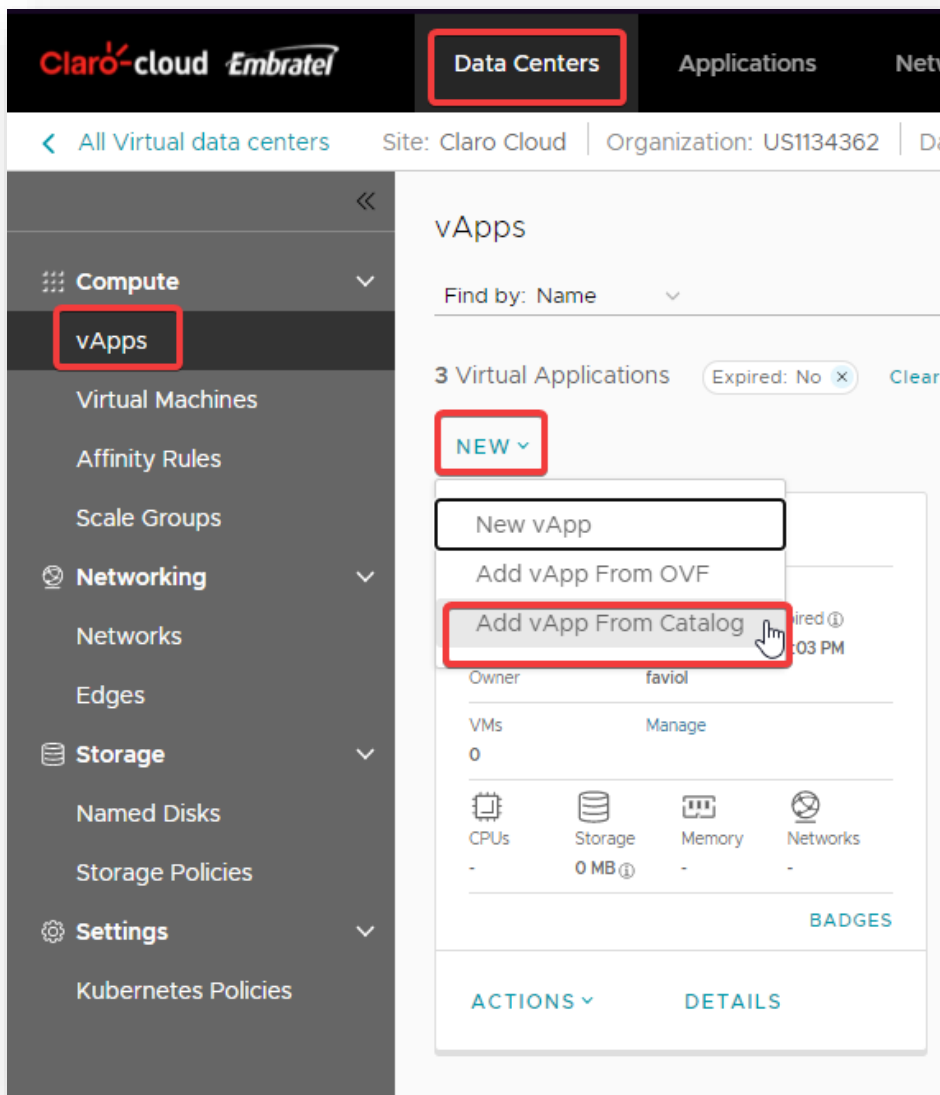
Applications	CPU	Memory	Storage
1 vApps	3 GHz	6 GB	76 GB
2 of 2 Running VMs			unlimited allocation

USMIA01P-US1134362A1349477

US1134362, Claro Cloud

Applications	CPU	Memory	Storage
2 vApps	7 GHz	8 GB	304 GB
3 of 6 Running VMs	80 GHz allocated	100 GB allocated	400 GB allocated

- Select vApp from the left menu, then new vApp.



3. The next screen will open, select the template with which the virtual machines will be created within the vAPP, click on "Next".

Create vApp from Template

- Select Template To Import**
- Select Name
- Configure Resources
- Custom Properties
- Ready to Complete

Select Template To Import

	Name	Catalog	Created On	VMs	Share VMs
<input type="radio"/>	.Windows 2012 R2	DOSDQ01P-VM-Catal...	08/03/2021, 03:19:24 PM	1	0
<input type="radio"/>	.Windows 2012 R2	USMIA01P-VM-Catalog	07/22/2021, 07:49:22 PM	1	0
<input type="radio"/>	.Windows 2012 R2	COBOG01P-VM-Catal...	07/22/2021, 10:04:23 PM	1	0
<input type="radio"/>	.Windows 2012 R2	ARBUE01P-VM-Catalog	07/22/2021, 07:47:58 P...	1	0
<input type="radio"/>	.Windows 2012 R2	CLSCL01P-VM-Catalog	07/22/2021, 07:48:04 P...	1	0
<input type="radio"/>	.Windows 2012 R2	ECGYE01P-VM-Catalog	07/22/2021, 07:48:10 PM	1	0
<input type="radio"/>	.Windows 2016 Standa...	DOSDQ01P-VM-Catal...	08/03/2021, 03:15:46 PM	1	0
<input type="radio"/>	.Windows 2016 Standa...	ECGYE01P-VM-Catalog	07/22/2021, 07:48:09 P...	1	0
<input type="radio"/>	.Windows 2016 Standa...	ARBUE01P-VM-Catalog	07/22/2021, 07:47:52 PM	1	0
<input type="radio"/>	.Windows 2016 Standa...	USMIA01P-VM-Catalog	07/22/2021, 07:49:14 PM	1	0
<input type="radio"/>	.Windows 2016 Standa...	CLSCL01P-VM-Catalog	07/22/2021, 07:47:57 PM	1	0
<input type="radio"/>	.Windows 2016 Standa...	COBOG01P-VM-Catal...	07/22/2021, 10:04:19 PM	1	0
<input type="radio"/>	.Windows 2019 Standa...	ARBUE01P-VM-Catalog	07/22/2021, 07:47:54 P...	1	0
<input type="radio"/>	.Windows 2019 Standa...	CLSCL01P-VM-Catalog	07/22/2021, 10:04:17 PM	1	0
<input checked="" type="radio"/>	.Windows 2019 Standa...	USMIA01P-VM-Catalog	09/13/2021, 11:04:09 AM	1	0

1 - 15 of 18 vApp Template(s)
< 1 / 2 >

CANCEL
NEXT

4. Enter the requested parameters, click next.

Item	Description
Name	The name by which the vApp will be identified in the VDC. (Required field).
Description	Field to assign a label which describes the vApp (Optional).
Runtime lease	How long the vApp can run before it stops automatically.
Storage lease	The period in which this vApp is available between the time it stops and the time when the automatic cleanup occurs.

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Custom Properties

8 Ready to Complete

Select Name

Name *

vAppFromCatalog

Description

Runtime lease

Never Expires

Hour(s)

How long this vApp can run before it is automatically stopped.

Storage lease

Never Expires

Hour(s)

The period this vApp is available between the time you stop it and its automatic cleanup.

CANCEL

PREVIOUS

NEXT

5. In storage policies select "Premium SSD" which will be used by the virtual machine, then click "Next".

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Custom Properties

8 Ready to Complete

Configure Resources

Select the Storage Policies that you want the deployed virtual machines of this vApp to use.

Name	Storage Policy	Default VM Template Storage Policy
Windows2019	SSDPremium	-

Select per-disk Storage Policies.

Select a VMWindows2019

Name	Storage Policy	IOPS	Source VM Storage Policy
Hard disk 1	SSDPremium	Not Applicable	-

CANCEL

PREVIOUS

NEXT

- Then select the vCPU capacity and RAM with which the virtual machines will be created within the vApp. When finished, click "Next".

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Compute Policies

Configure the VM Placement and VM Sizing policies for each VM.

Virtual Machines	VM Placement Policy	VM Sizing Policy
Windows2019	None	System Default

Compute

Placement Policy

Q None

▼

Virtual CPUs

2

▼

Cores per socket

2

▼

Number of sockets

1

Memory

2

GB

▼

1 - 1 of 1 VM template(s)

CANCEL

PREVIOUS

NEXT

7. Select the storage capacity with which the virtual machines will be created within the vApp, then click "Next".

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Customize Hardware

Review the hardware of the virtual machines in this vApp

Virtual Machine	Storage				
Windows2019	<div>Hard Disks</div> <table><thead><tr><th>Name</th><th>Size</th></tr></thead><tbody><tr><td>Hard disk 1</td><td>50 GB</td></tr></tbody></table>	Name	Size	Hard disk 1	50 GB
Name	Size				
Hard disk 1	50 GB				

1 item(s)

CANCEL

PREVIOUS

NEXT

8. Configure the networks to be used in the vApp, click on "Next".

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Configure Networking

Select the networks to which you want each virtual machine to connect. You can configure additional properties for virtual machines after you complete this wizard.

☐ Switch to the advanced networking workflow

Virtual Machines	Computer Name	Primary NIC	Network
Windows2019	Windows2019	NIC 0	priv1 IP Pool

CANCEL

PREVIOUS

NEXT

Note: On this screen you can enable the option "Switch to Advanced Networking Workflow" allows you to select the type of network adapter, network, IP mapping

9. Once all the steps are configured, a summary of your configuration will be displayed, by clicking on "Finish".

The screenshot shows the 'Ready to Complete' step of the 'Create vApp from Template' wizard. On the left, a sidebar lists seven steps: 1. Select Template To Import, 2. Select Name, 3. Configure Resources, 4. Compute Policies, 5. Customize Hardware, 6. Configure Networking, and 7. Ready to Complete (highlighted). The main area displays a summary of the vApp configuration:

vApp Template	.Windows 2019 Standard
VDC	USMIA01P-US1134362A1349477
vApp name	vAppFromCatalog
vApp description	
Runtime lease	Never Expires
Storage lease	Never Expires
Networks	priv1

Below this, a table summarizes the VM specifications:

VM	Storage policy	VM Placement Policy	VM Sizing Policy	CPUs	Memory	Storage
Windows2019	SSDPremium	None	System Def...	2	2 GB	50 GB

At the bottom right, there are three buttons: 'CANCEL', 'PREVIOUS', and 'FINISH' (highlighted with a red box).

Delete a vApp

1. Select in the datacenter where the VApp to be removed is located.

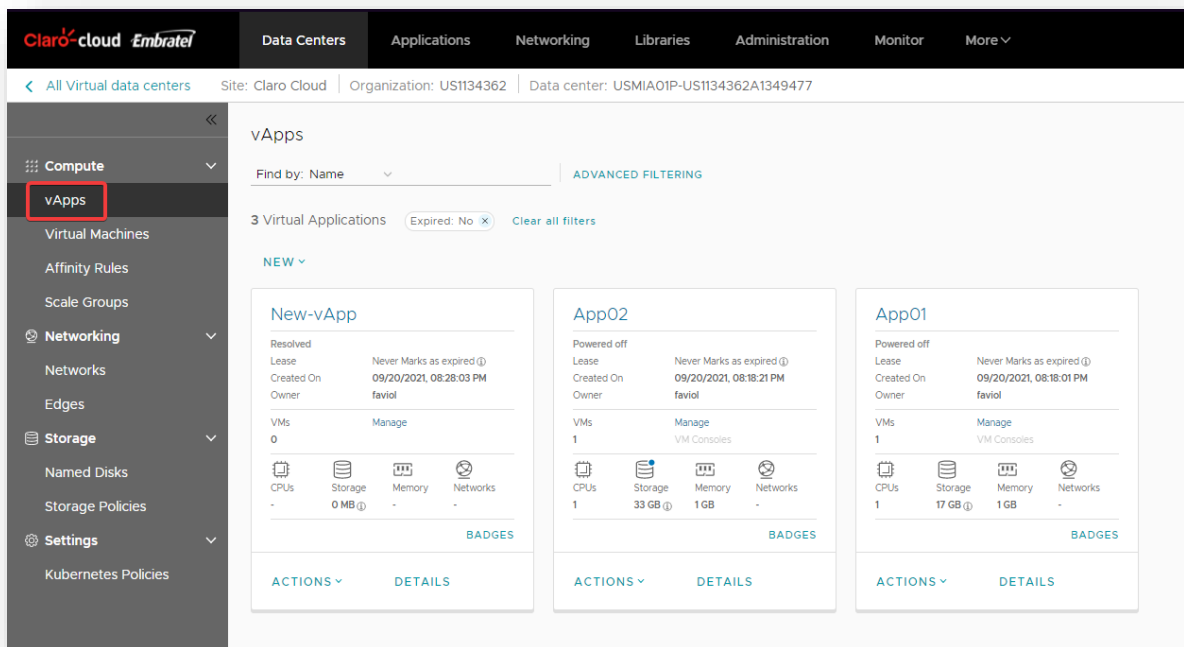
The screenshot shows the 'Data Centers' tab in the ClarifCloud Embratel interface. The top navigation bar includes 'Data Centers' (highlighted with a red box), 'Applications', 'Networking', 'Libraries', 'Administration', 'Monitor', and 'More'. The main content area displays a list of Virtual Data Centers (VDCs). The first VDC is highlighted with a red box:

Applications	CPU	Memory	Storage
1 vApps	3 GHz	6 GB	76 GB
2 of 2 Running VMs			unlimited allocation

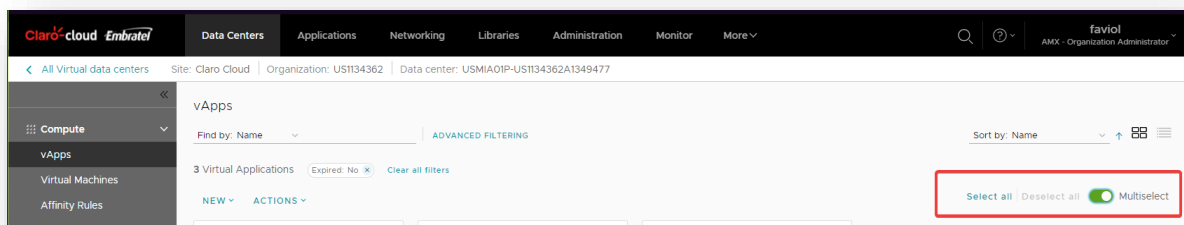
The second VDC is also highlighted with a red box and shows a detailed resource usage summary:

Applications	CPU	Memory	Storage
2 vApps	7 GHz	8 GB	304 GB
3 of 6 Running VMs	80 GHz allocated	100 GB allocated	400 GB allocated

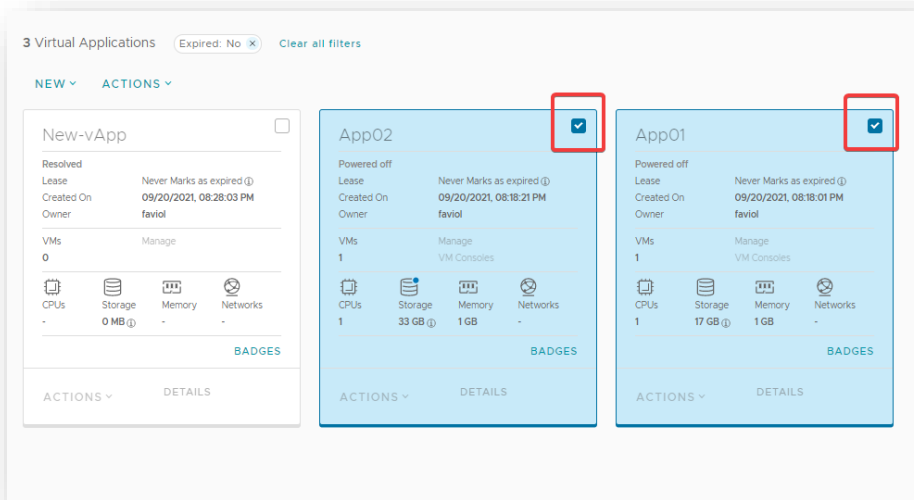
2. Enter the "vApps" section and select the vApp to be deleted



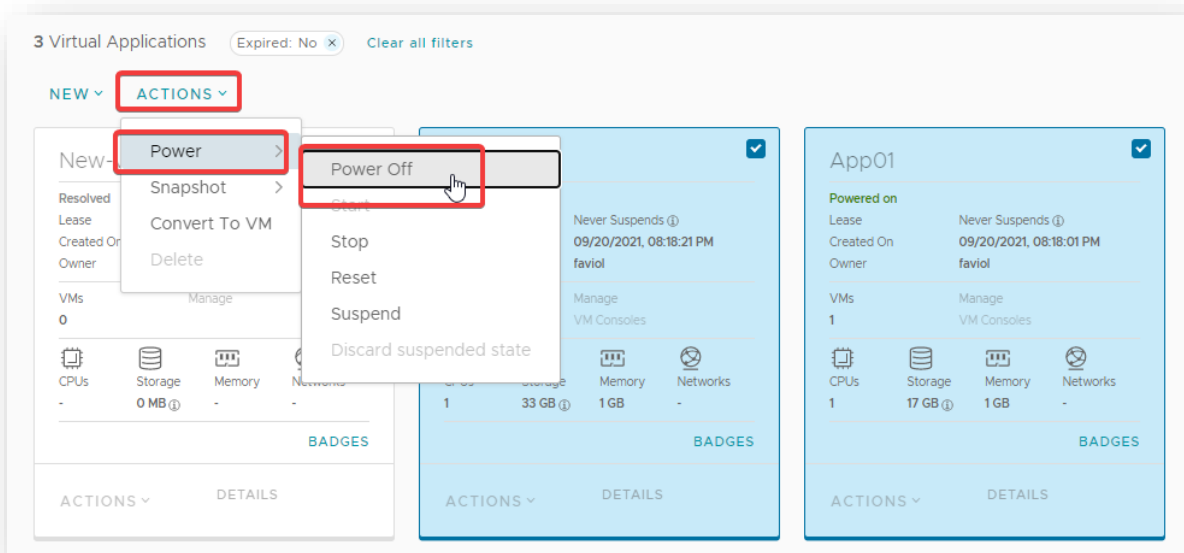
3. If you need to run this action on multiple instances, enable the "multiple-select" button located at the top of the vApps panel



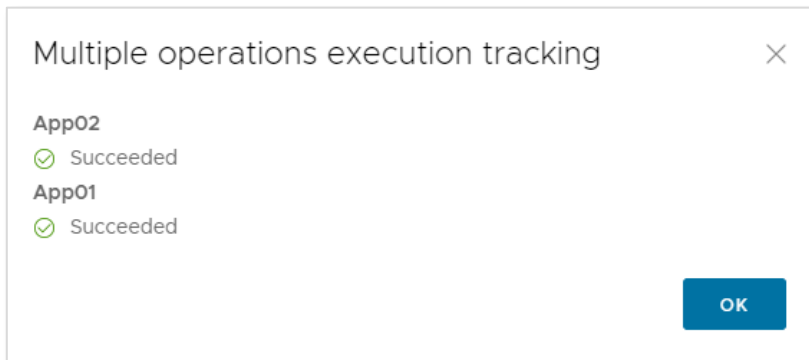
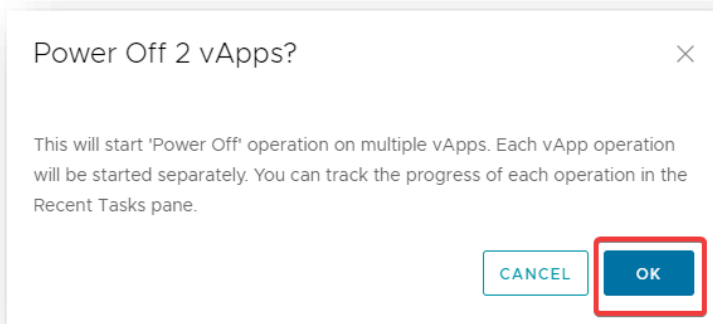
4. Select the vApps you want to change



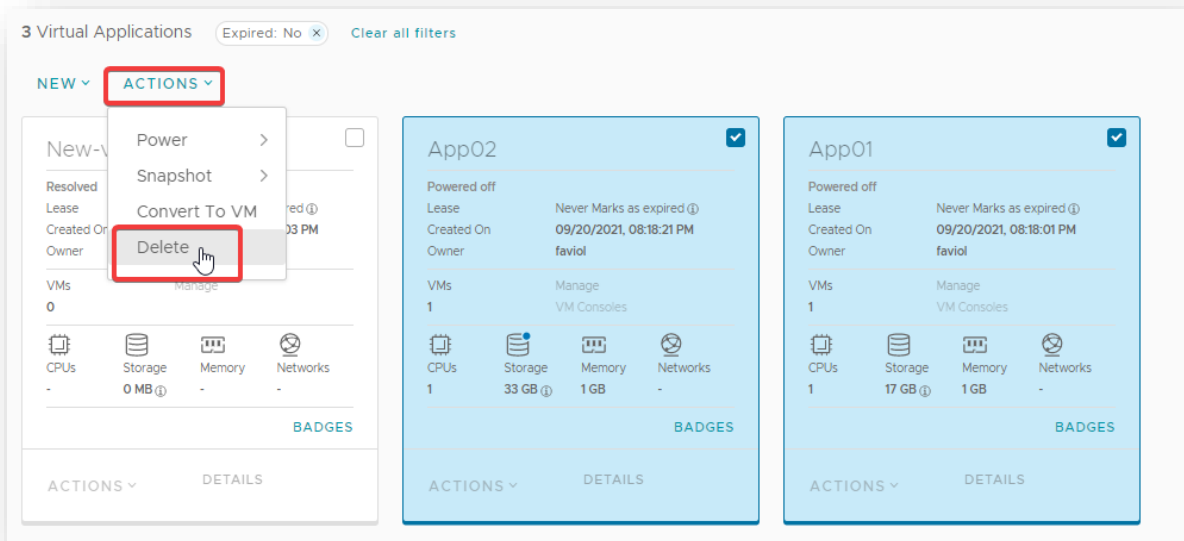
5. Turn off the vApp(s) you want to delete, by clicking "Actions" / "Power" / "Power Off"



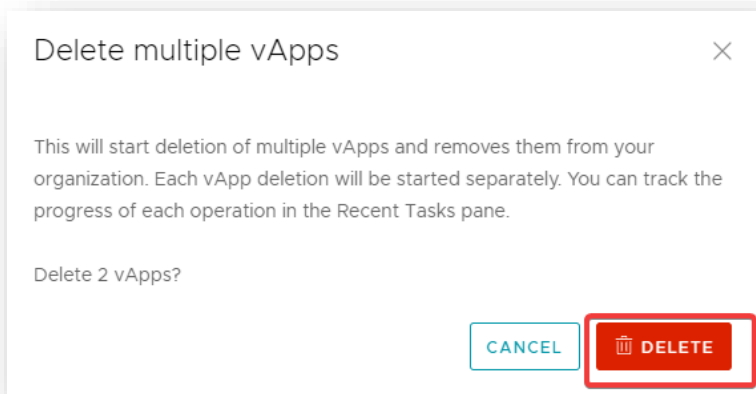
6. Confirm shutdown



7. Once powered off, click on "Actions" and select "Delete"



8. Confirm Delete to finish the process



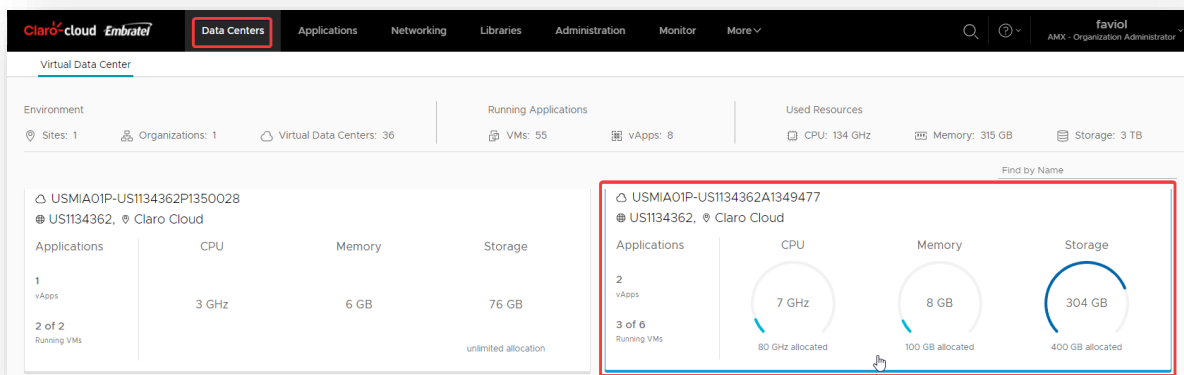
Creating Snapshot in vApps

Taking a snapshot of a vApp takes a snapshot of all virtual machines in the vApp. After you take the snapshot, you revert all virtual machines in the vApp to the snapshot or delete it if you don't need it.

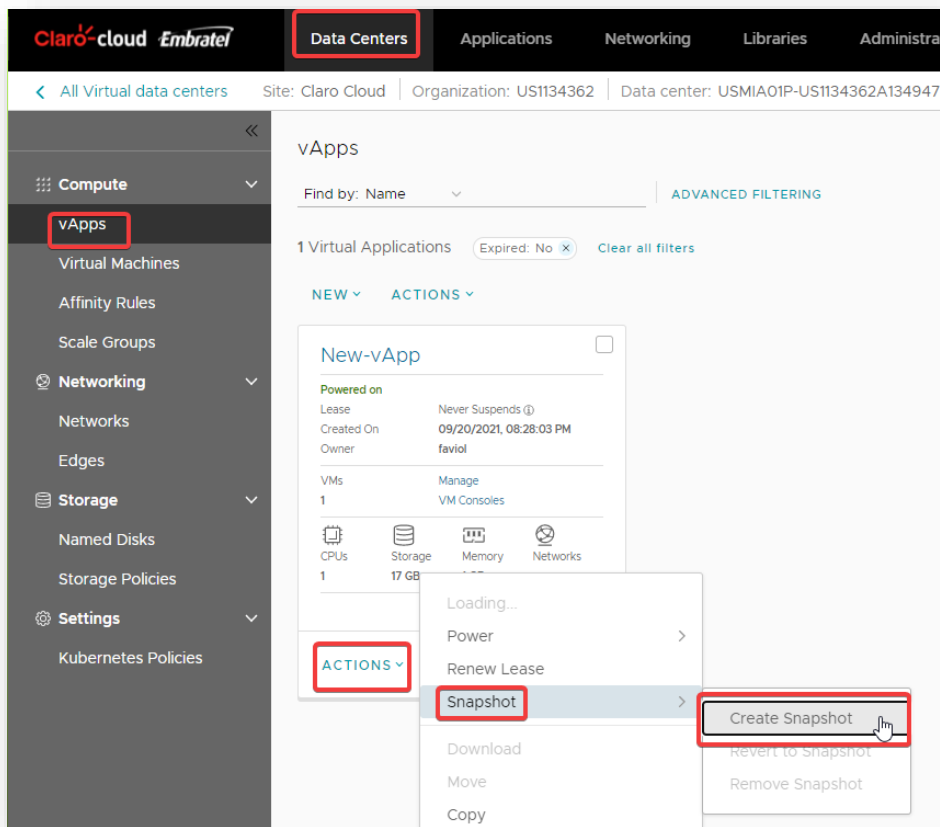
vApp snapshots have some limitations.

- vApp snapshots do not capture NIC configurations.
- If any vApp virtual machine is connected to a named disk, it cannot take a snapshot of the vApp.

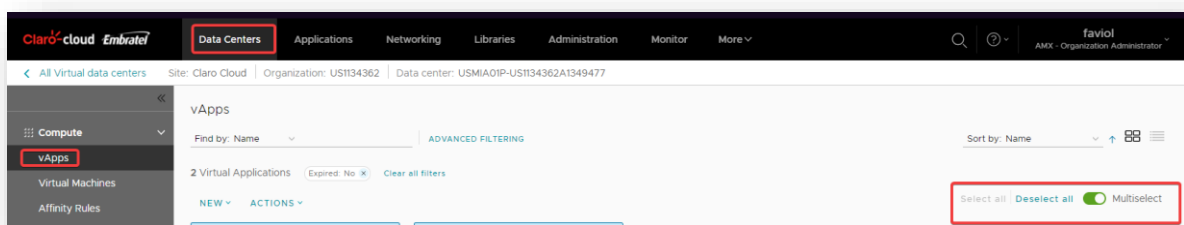
1. To take the snapshot select "Data Center" from the top menu, identify and click on the Data Center box that contains the vApp



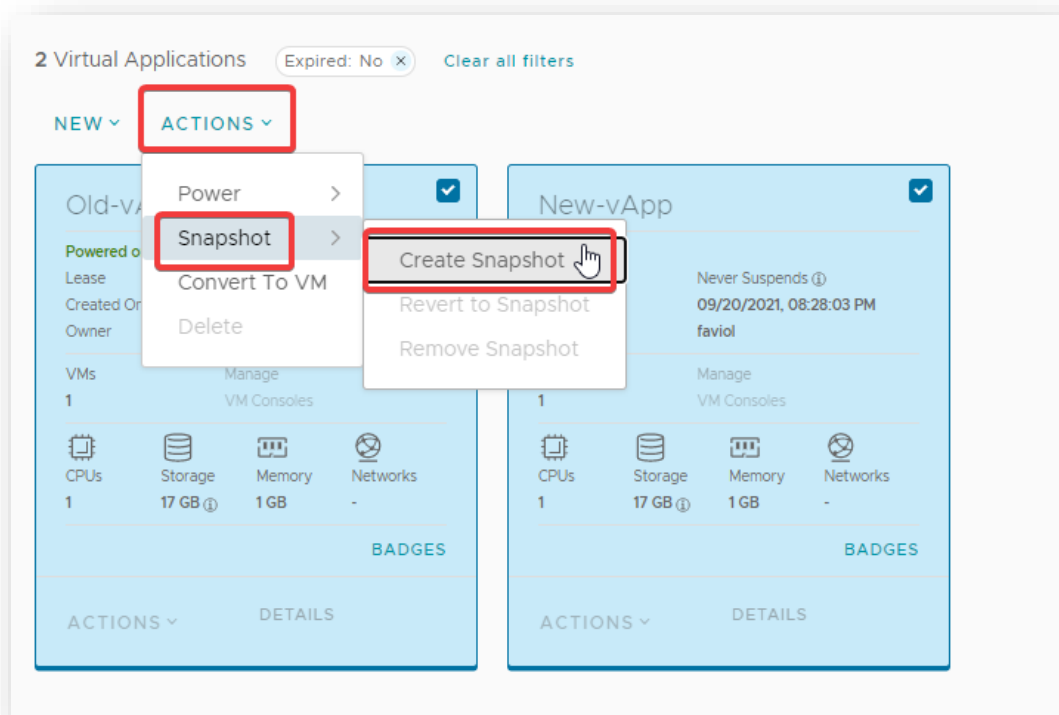
2. Within the data center, select "vApps". Identify the vApp from which the snapshot will be taken, by clicking on the "Actions" / Snapshot / "Create snapshot"



3. If you need to run this action on multiple instances, enable the "Multiselect" button located at the top of the vApps panel



4. Select the vApps you want to change and click on "Actions" / "Snapshot" / "Create Snapshot"

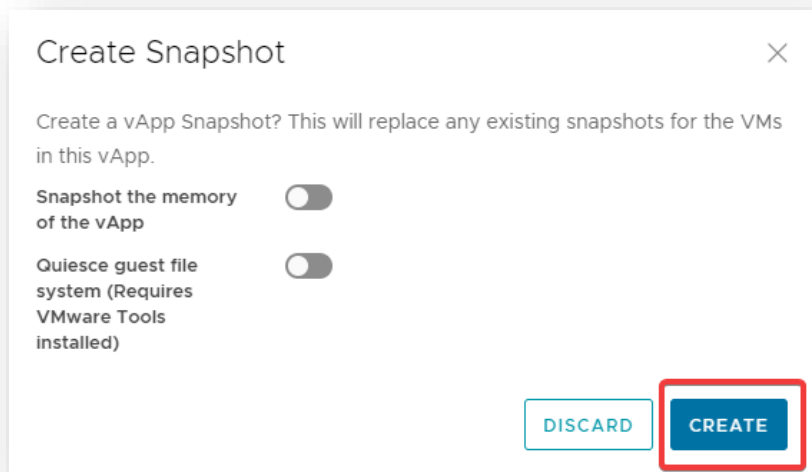


5. The following optional screen will open, with the following options

Item	Description
Take snapshot of virtual machine memory	<p>When the virtual machine memory state is captured, the snapshot retains the active state of the virtual machine. Snapshots created with memory take a snapshot at a precise time, for example, to update software that is still in operation. If you create a snapshot of memory and the update does not finish as expected, or if the software does not meet your expectations, you can revert to the previous state of the virtual machine.</p> <p>When memory state is captured, you do not need to idle the virtual machine files. If the memory state is not captured, the snapshot does not save the active state of the virtual machine, and the disks are fault-consistent unless they are put into idle mode.</p>
Put the guest file system into idle mode (requires VMware Tools be installed)	<p>For this operation, VMware Tools must be installed on the virtual machine. When you put a virtual machine into idle mode, VMware Tools puts the virtual machine's file system into idle mode. An inactive mode operation ensures that the snapshot disk represents a consistent state of the guest file systems. Snapshots in idle</p>

	<p>mode are suitable for automated or periodic backups. For example, if the activity of the virtual machine is unknown, but you want to have several recent backups for rollbacking, you can put the files into idle mode.</p> <p>Virtual machines that have large capacity disks cannot be put into idle mode.</p>
--	---

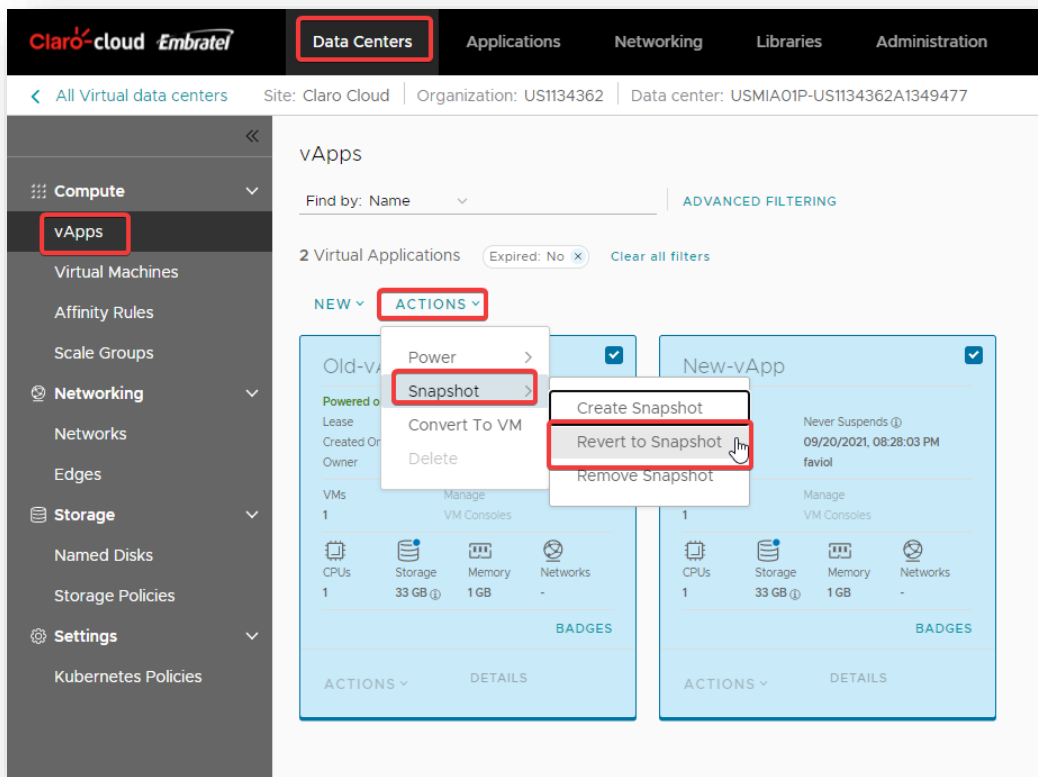
6. Click "Create"



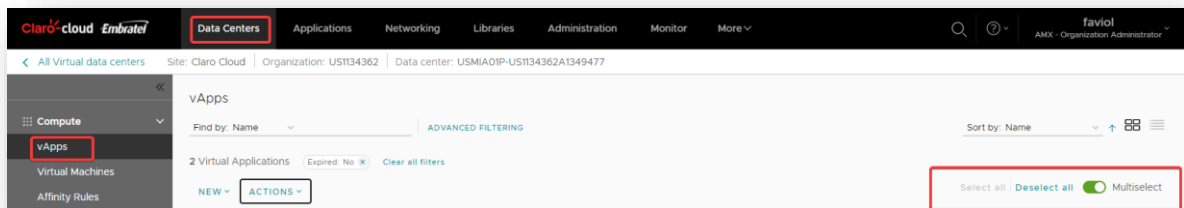
Revert a Snapshot of a vApp

Snapshots can be rolled back for all virtual machines in a vApp to the state they were in when you created the vApp snapshot. To perform this process follow these steps:

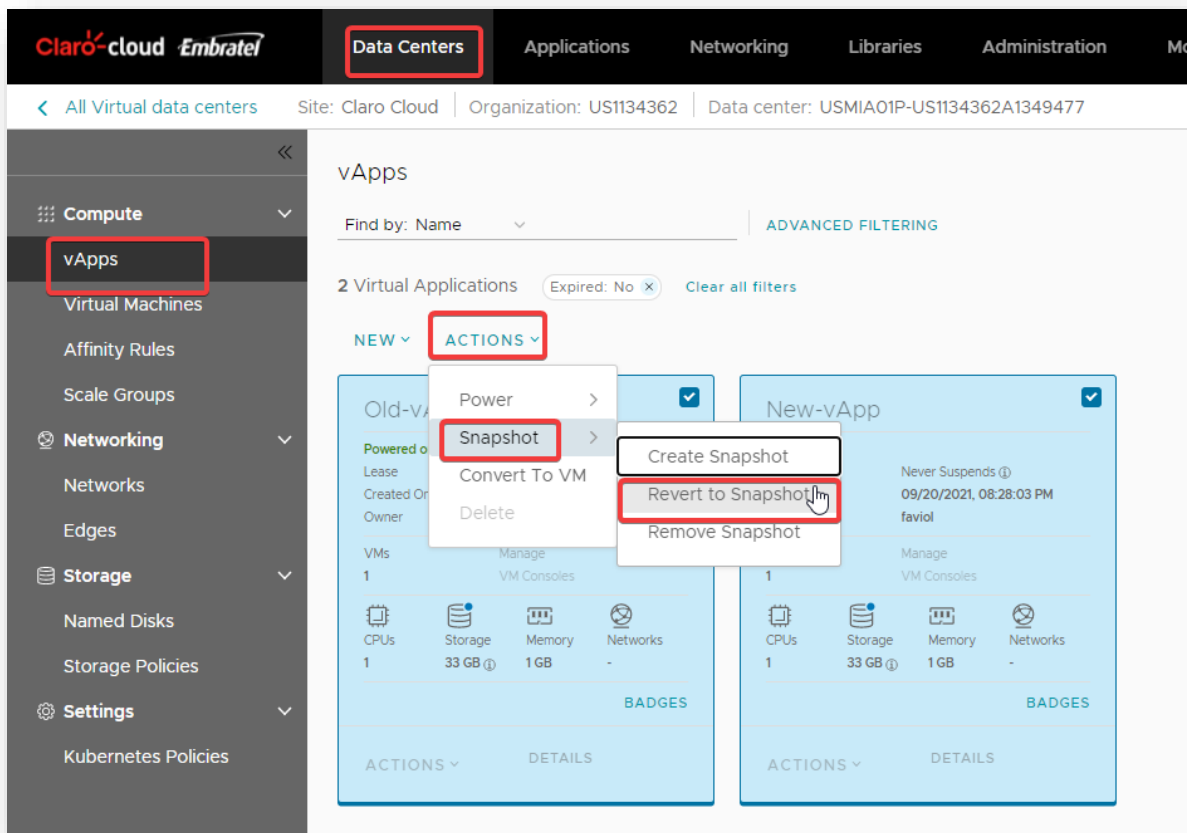
1. In the Data Center menu, select vApps, then choose the vApp to which you want to revert the snapshot, later in the Actions menu select Snapshot and then "Revert to Snapshot"



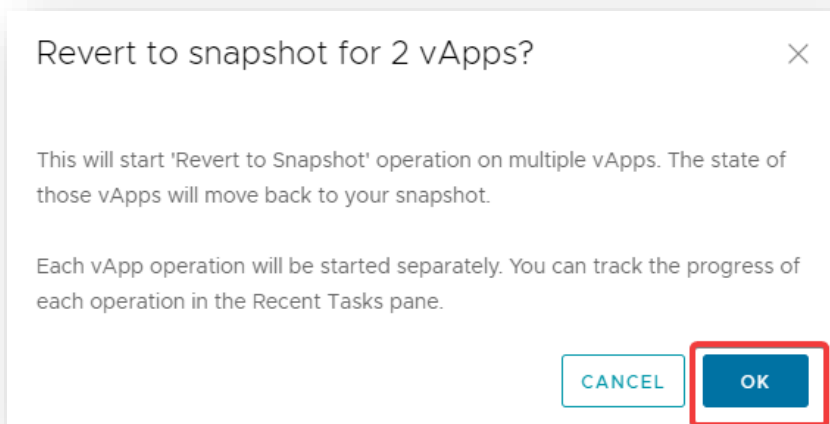
2. If you need to run this action on multiple instances, enable the "Multiselect" button located at the top of the vApps panel



3. Select the vApps you want to occupy and click on "Actions" / "Snapshot" / "Revert to Snapshot"



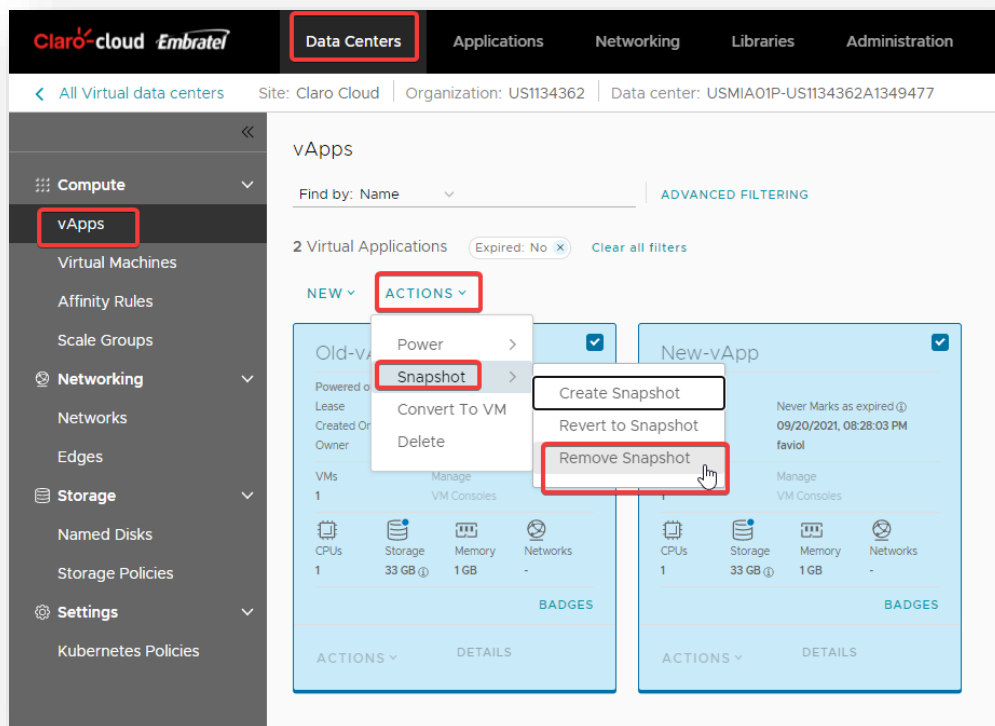
4. Then click "OK" to finish the process



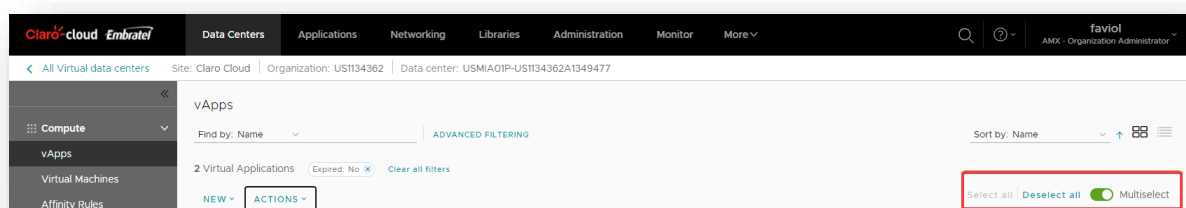
Remove a snapshot from a vApp

You can delete a snapshot from a vApp. When you delete a vApp snapshot, you delete the state of the virtual machines in the snapshot and cannot revert to that state again. Deleting a snapshot does not affect the current state. You may remove a vApp snapshot by the following process:

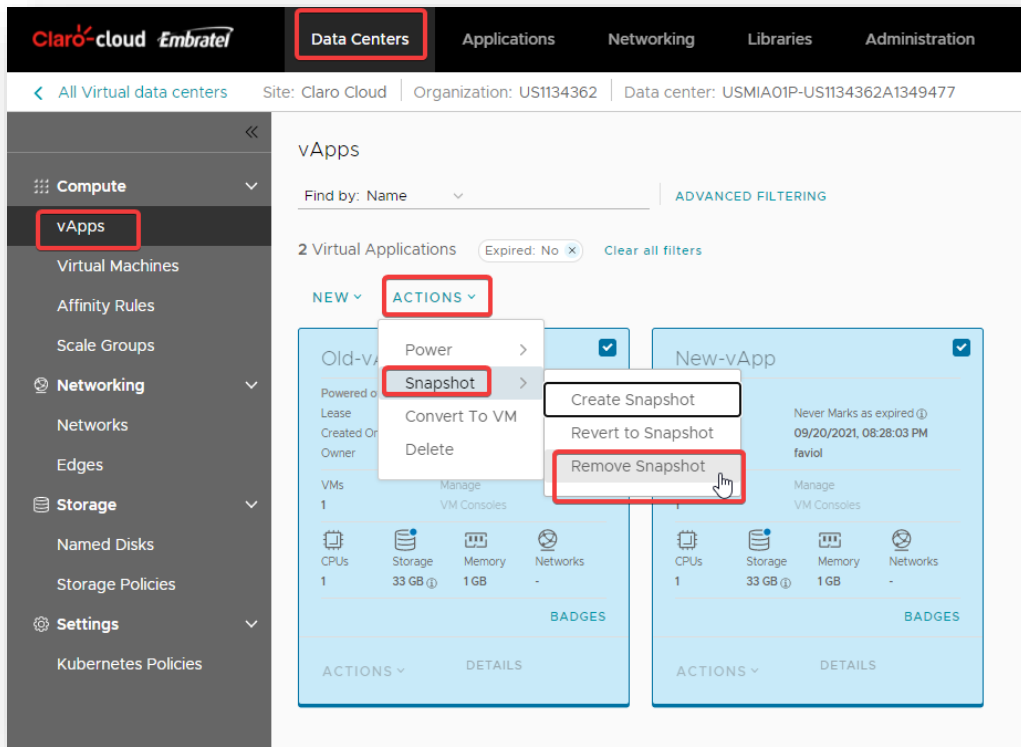
1. On the Data Centers menu, select vApps, then click Actions, then click Snapshot, then click Remove Snapshot



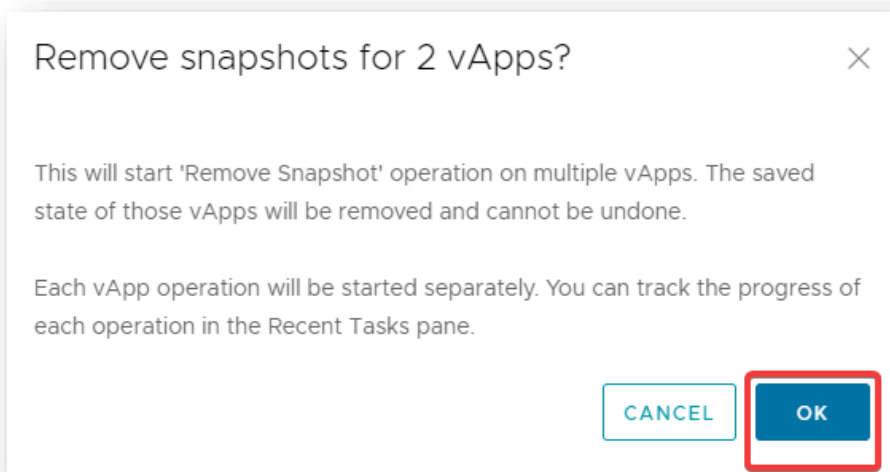
2. If you need to run this action on multiple instances, enable the "Multiselect" button located at the top of the vApps panel



3. Select the vApps you want to change and click on "Actions" / "Snapshot" / "Remove Snapshot"



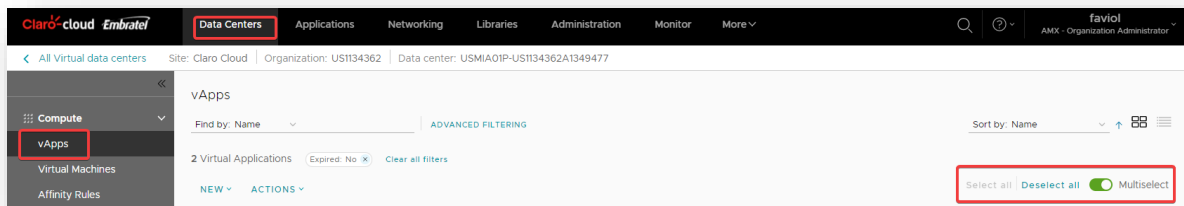
4. Click "OK" to finish the process



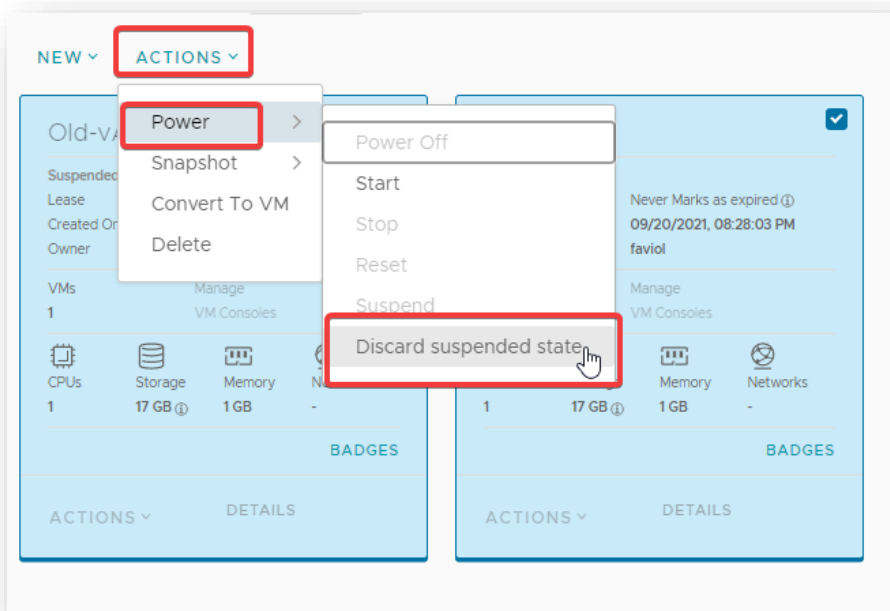
Common actions applied to multiple vApps

You can perform the Shutdown, Power, Restart or Sleep on multiple vApps through the Enterprise Claro Cloud panel

1. Above the Data Center menu, slide the "Multiselect" button to the right



2. Select the vApps that you want to apply an action to them
3. Click on the "Actions" button, then click on "Power" and you can click on the option that you need to apply



4. Confirm the action by clicking OK

Discard suspended state for 2 vApps?



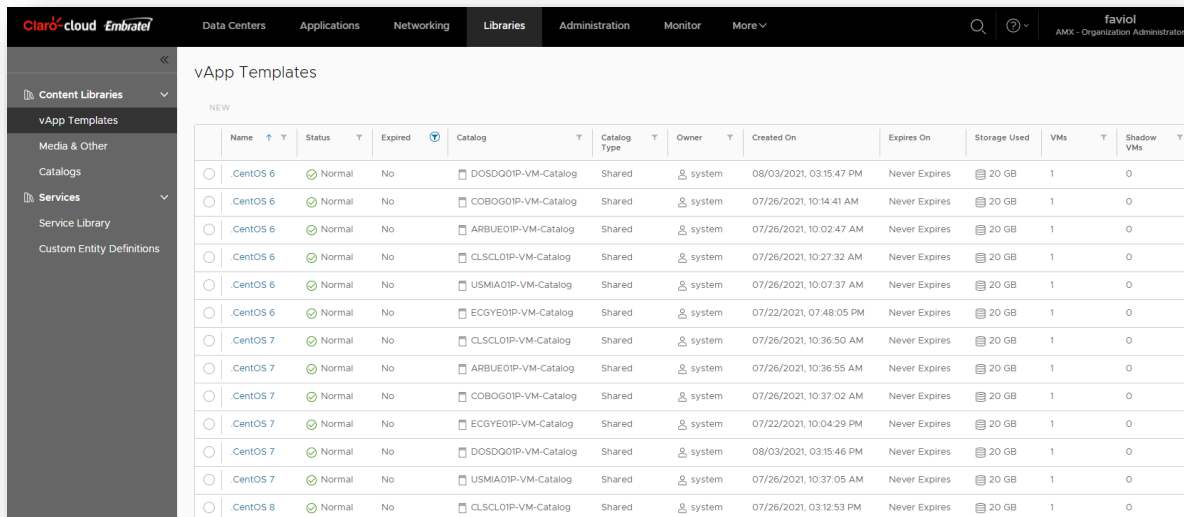
This will start 'Discard suspended state' operation on multiple vApps. Each vApp operation will be started separately. You can track the progress of each operation in the Recent Tasks pane.

CANCEL

OK

8. Public and Private Catalogs

In this section you will find the different available catalogs and images, library of services for workflows such as adding a Gateway, a new public IP, user management, among others.

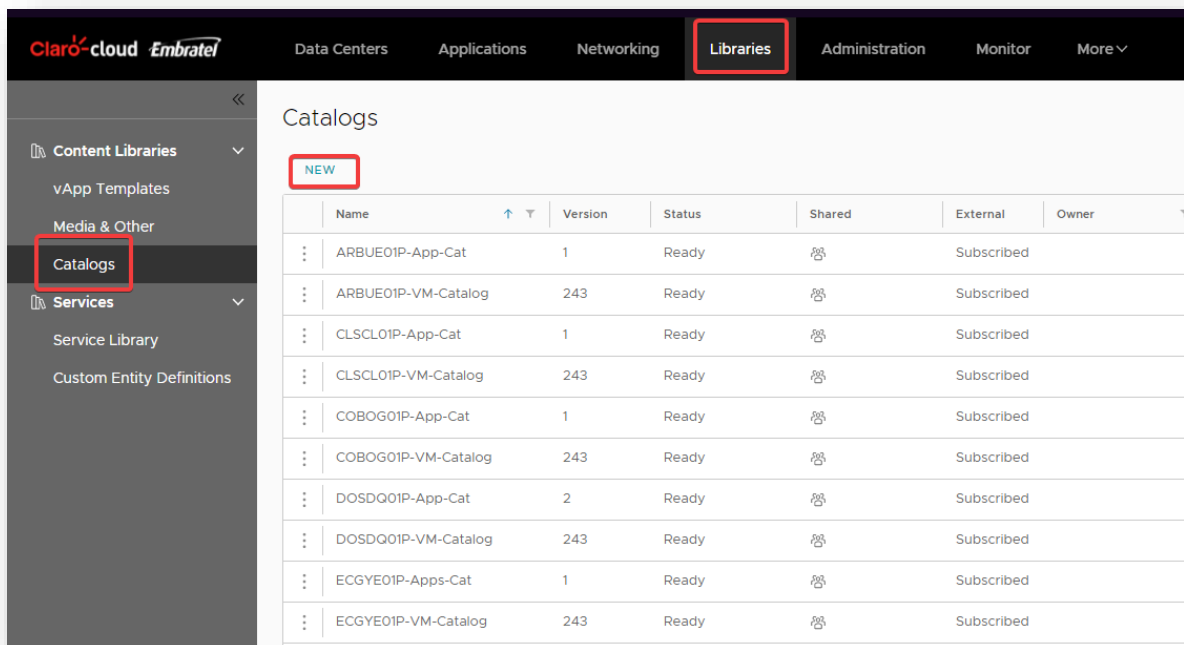


	Name	Status	Expired	Catalog	Catalog Type	Owner	Created On	Expires On	Storage Used	VMs	Shadow VMs
	CentOS 6	Normal	No	DOSDQ01P-VM-Catalog	Shared	system	08/03/2021, 03:15:47 PM	Never Expires	20 GB	1	0
	CentOS 6	Normal	No	COBOG01P-VM-Catalog	Shared	system	07/26/2021, 10:14:41 AM	Never Expires	20 GB	1	0
	CentOS 6	Normal	No	ARBUE01P-VM-Catalog	Shared	system	07/26/2021, 10:02:47 AM	Never Expires	20 GB	1	0
	CentOS 6	Normal	No	CLSCLO1P-VM-Catalog	Shared	system	07/26/2021, 10:27:32 AM	Never Expires	20 GB	1	0
	CentOS 6	Normal	No	USMIA01P-VM-Catalog	Shared	system	07/26/2021, 10:07:37 AM	Never Expires	20 GB	1	0
	CentOS 6	Normal	No	ECGYE01P-VM-Catalog	Shared	system	07/22/2021, 07:48:05 PM	Never Expires	20 GB	1	0
	CentOS 7	Normal	No	CLSCLO1P-VM-Catalog	Shared	system	07/26/2021, 10:36:50 AM	Never Expires	20 GB	1	0
	CentOS 7	Normal	No	ARBUE01P-VM-Catalog	Shared	system	07/26/2021, 10:36:55 AM	Never Expires	20 GB	1	0
	CentOS 7	Normal	No	COBOG01P-VM-Catalog	Shared	system	07/26/2021, 10:37:02 AM	Never Expires	20 GB	1	0
	CentOS 7	Normal	No	ECGYE01P-VM-Catalog	Shared	system	07/22/2021, 10:04:29 PM	Never Expires	20 GB	1	0
	CentOS 7	Normal	No	DOSDQ01P-VM-Catalog	Shared	system	08/03/2021, 03:15:46 PM	Never Expires	20 GB	1	0
	CentOS 7	Normal	No	USMIA01P-VM-Catalog	Shared	system	07/26/2021, 10:37:05 AM	Never Expires	20 GB	1	0
	CentOS 8	Normal	No	CLSCLO1P-VM-Catalog	Shared	system	07/26/2021, 03:12:53 PM	Never Expires	20 GB	1	0

Create a Catalog

To create new catalogs and associate them with a storage policy, follow these steps

1. On the main menu, point to Libraries, in the left pane, click Catalog, and then click New



	Name	Version	Status	Shared	External	Owner
	ARBUE01P-App-Cat	1	Ready	🔒	Subscribed	
	ARBUE01P-VM-Catalog	243	Ready	🔒	Subscribed	
	CLSCLO1P-App-Cat	1	Ready	🔒	Subscribed	
	CLSCLO1P-VM-Catalog	243	Ready	🔒	Subscribed	
	COBOG01P-App-Cat	1	Ready	🔒	Subscribed	
	COBOG01P-VM-Catalog	243	Ready	🔒	Subscribed	
	DOSDQ01P-App-Cat	2	Ready	🔒	Subscribed	
	DOSDQ01P-VM-Catalog	243	Ready	🔒	Subscribed	
	ECGYE01P-Apps-Cat	1	Ready	🔒	Subscribed	
	ECGYE01P-VM-Catalog	243	Ready	🔒	Subscribed	

2. Fill in the information requested in the form

Item	Description
------	-------------

Name	Catalog name
Description	Catalog description
Pre-provisioning on specific storage policy	Define what type of storage policy the catalog is deployed to
Subscribe to an external catalog	Enable/Disable External Catalog Subscription
Subscription URL	External catalog address
Password	External catalog password

Create Catalog

Name this Catalog

You can use a catalog for sharing vApp templates and media with other users in your organization. You can also have a private catalog for vApp templates and media that you frequently use.

Name * CAT-01

Description

Pre-provision on specific storage policy ☐

Subscribed Catalog

A subscribed catalog is a read-only copy of an external published catalog and cannot be modified. Check the box and provide the location URL and an optional password.

Subscribe to an external catalog ☐

Subscription URL *

Example: <https://www.example.com/catalogs/my-catalog/> or file:///data/catalogs/my-catalog/

Password

Supply an optional password to access the catalog.

Automatically download the content from an external catalog ☐

CANCEL OK

Add templates to a private catalog

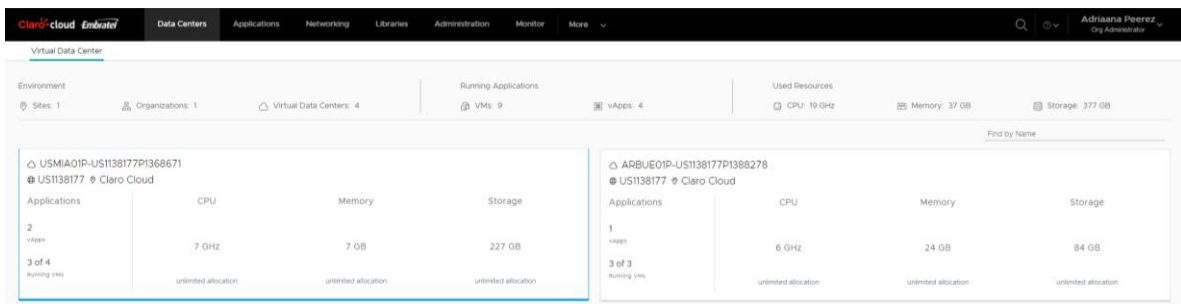
You will be able to upload .ISO images of Operating Systems and customized applications automatically. These templates can only be viewed by the catalog owner and users within your organization who share access to them

Create a template from an existing virtual machine

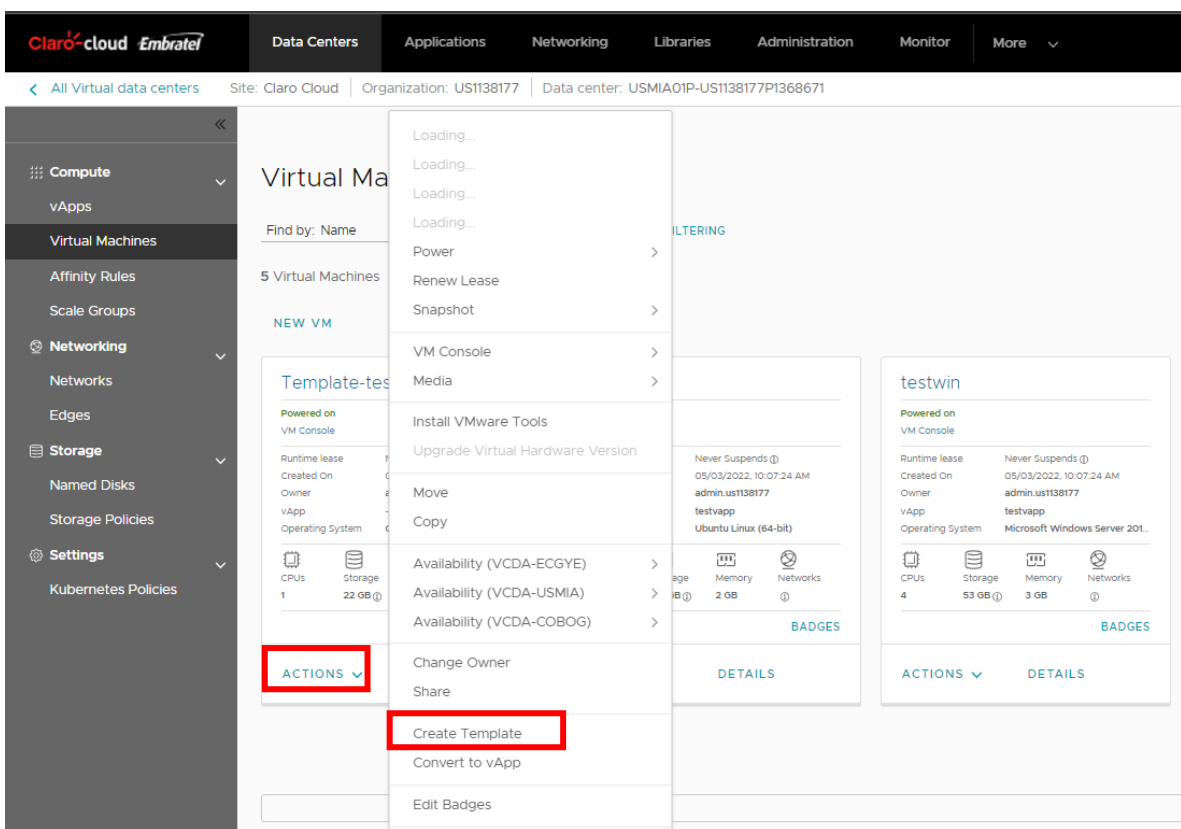
You can create templates from an existing virtual machine, with the goal of being able to create new virtual instances with the same configuration.

1. On the main menu, click Data Center, select the DCV where the virtual machine with which you need to create the template is hosted.

Important: A template does not replace a backup, the template only maintains the base configuration of the source virtual machine, but does not store the data on disk.



2. Select the Virtual Machines option and identify the Virtual Machine with which you need to create the template, by clicking on the action button within the virtual machine box, a menu will be displayed, click on create template.



3. The next screen will open, where you must enter the following information, at the end of clicking on the Ok button

Item	Description
Catalogue	Select the catalog where you want to host the template. Important: Only private catalogs can be modified.

Name	Enter the name you want to give the template within the catalog.
Description	Optional enter a short description, it is recommended to indicate the features of the template
When using this template:	If your VM is not associated with a default vApp, the "Make an identical copy" option will be preselected

Add to Catalog: Template-test

Add this vApp to catalog:

Catalog: *

Select Catalog

Name *

Template-test

Description

When using this template:

☒ Make identical copy

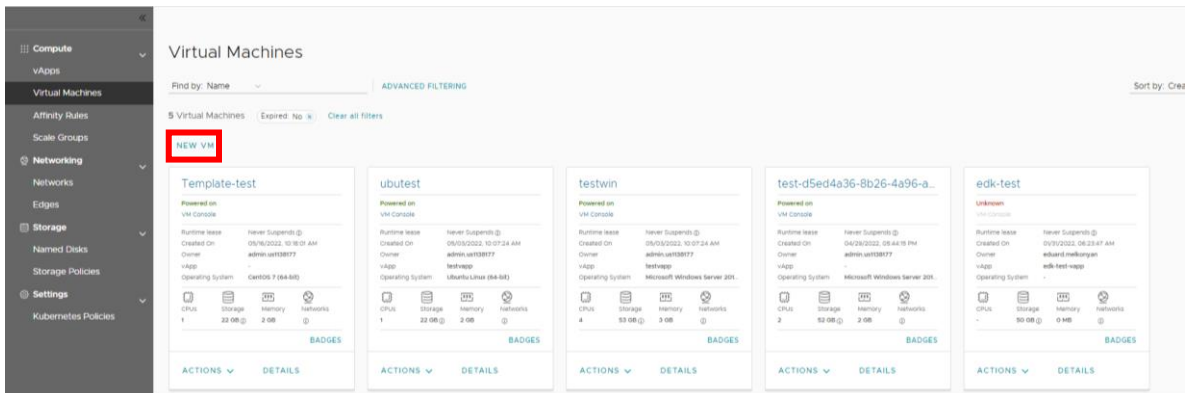
☐ Customize VM settings

This setting applies when creating a vApp based on this template. It is ignored when building a vApp using individual VMs from this template.

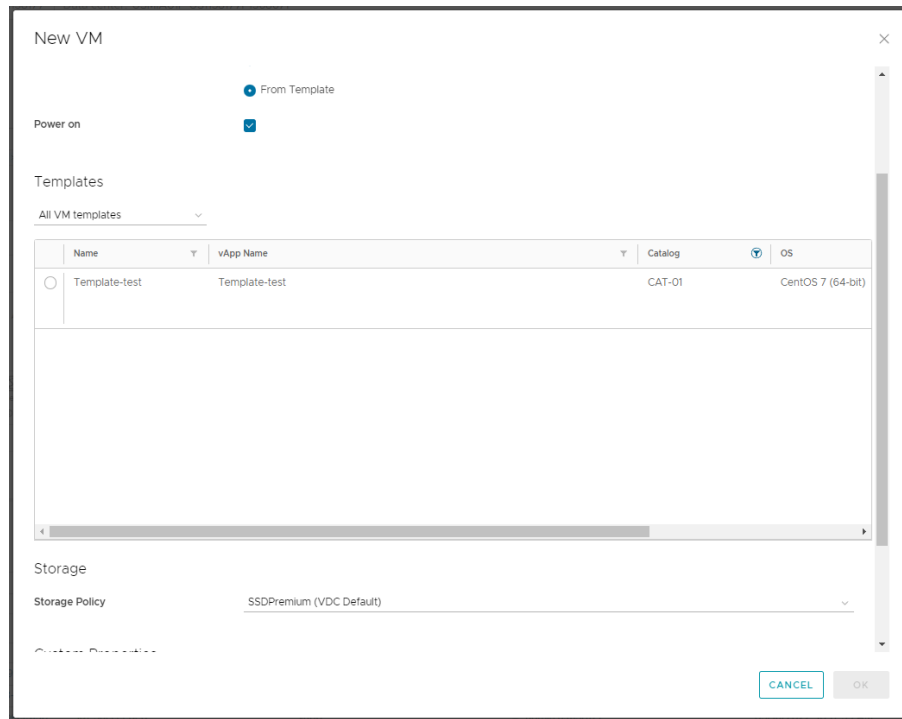
CANCEL

OK

- To create a virtual machine from the new template, enter the panel of your DCV and click on New Virtual Machine.



- In the Templates section filter by the name of the created catalog, the new template(s) will be deployed, follow the standard process for creating Virtual Machines.

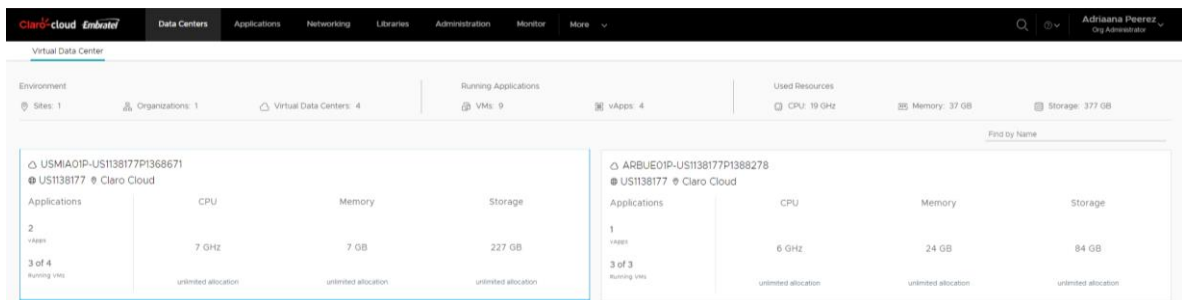


Create a template from an existing vApp

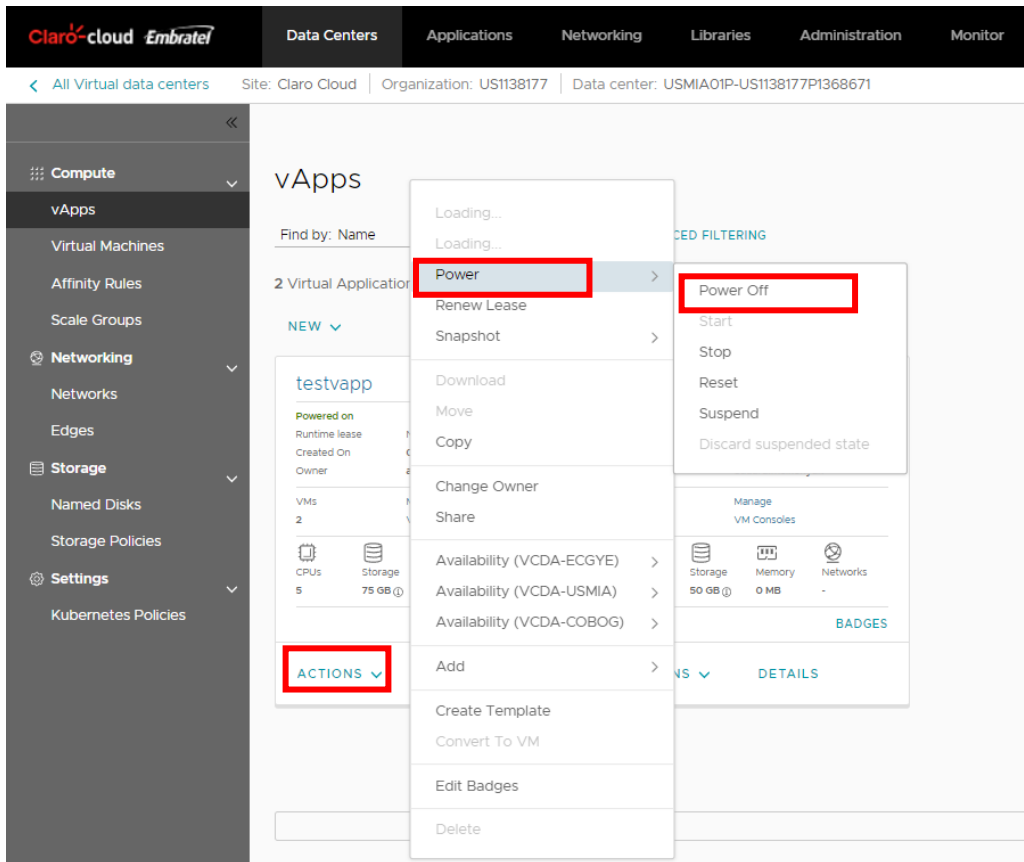
You can create templates from an existing vApp, the template will include the features of all the Virtual Machines associated with the vApp.

1. On the main menu, click Data Center, select the DCV where the vApp with which you need to create the template is hosted.

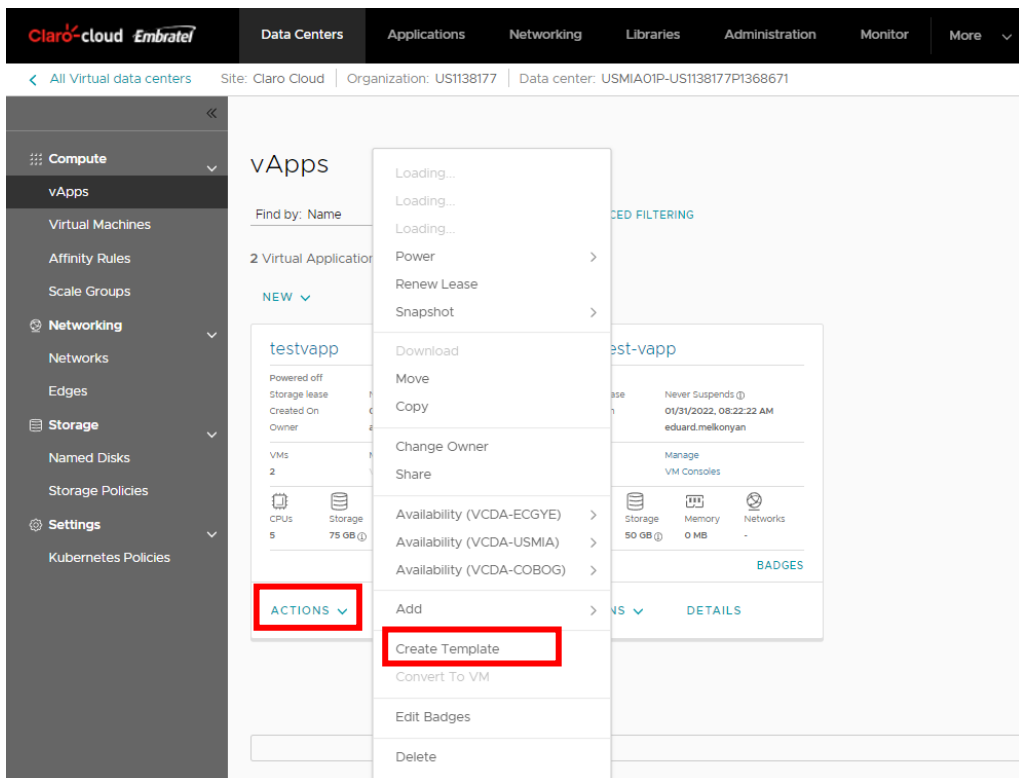
Important: A template does not replace a backup, the template only maintains the base configuration of the source virtual machine, but does not store the data on disk.



6. Select the vApp option and identify the vApp with which you need to create the template, it will be required to turn off the vApp, click on Actions, a click menu on Power / Power Off will be displayed.



2. Once the vApp is turned off, click the Actions button again, click the Create Template option



- The next screen will open, where you will need to enter the following information, at the end of clicking on the Ok button

Item	Description
Catalogue	Select the catalog where you want to host the template. Important: Only private catalogs can be modified.
Name	Enter the name you want to give the template within the catalog.
Description	Optional enter a short description, it is recommended to indicate the features of the template
When using this template:	Keep the default option "Customize virtual machine settings"

Important: If any VM within the vApp has separate disks associated with it, it is necessary to unlink them. Otherwise the creation of the template will fail

Add to Catalog: testvapp

Add this vApp to catalog:

Catalog: *

Name *

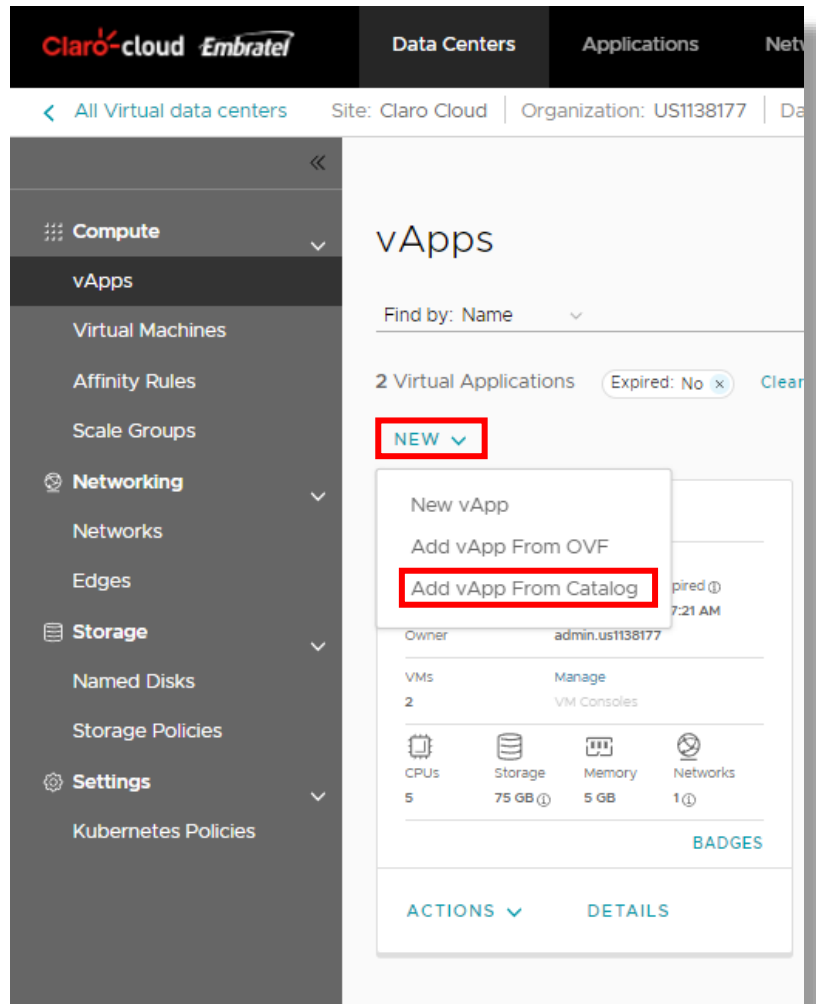
Description

When using this template:

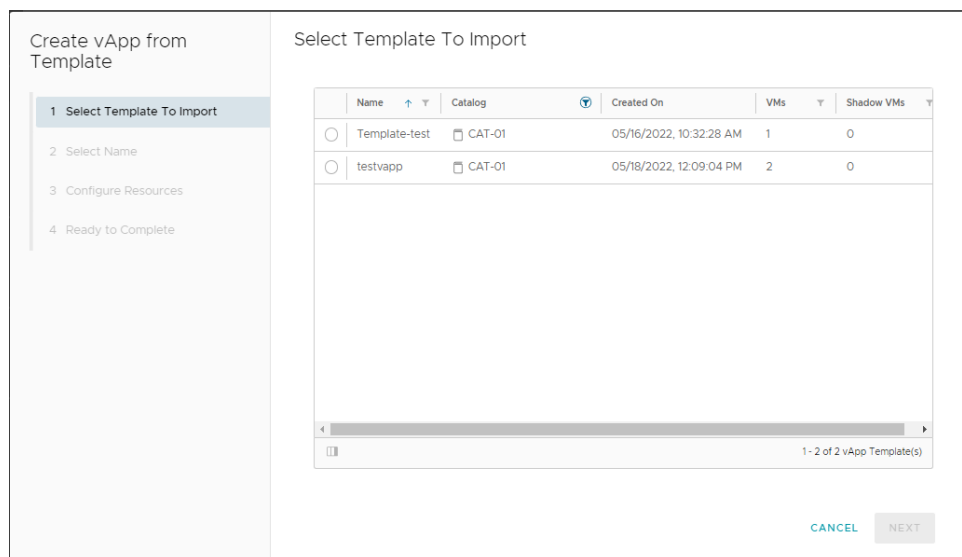
☐ Make identical copy ☒ Customize VM settings

This setting applies when creating a vApp based on this template. It is ignored when building a vApp using individual VMs from this template.

- To create a vApp from the new template, enter the panel of your DCV and enter the vApps section, click on New / Create vApp from catalog



5. The next screen will open, in the template section I filtered by the name of the Catalog, and selected the template you want to occupy, click next.



6. In the Name section, enter the name and description of the new vApp, keep the default values of Runtime lease and Storage lease, click next.

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Select Name

Name *

Nueva vApp

Description

prueba desde template

Runtime lease

Never Expires ▾ Hour(s) ▾

How long this vApp can run before it is automatically stopped.

Storage lease

Never Expires ▾ Hour(s) ▾

The period this vApp is available between the time you stop it and its automatic cleanup.

CANCEL

PREVIOUS

NEXT

7. In the "Configure Resources" section, the name and storage policies of the new VMs to be created will be displayed, the names of the VMs can be changed, keep the rest of the parameters with the default values, click on next

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Configure Resources

Select the Storage Policies that you want the deployed virtual machines of this vApp to use.

Name	Storage Policy	Default VM Template Storage Policy
testwin	SSDPremium ▾	-
ubutest	SSDPremium ▾	-

Select per-disk Storage Policies.

Select a VM

testwin ▾

Name	Storage Policy	IOPS	Source VM Storage Policy
Hard disk 1	SSDPremium ▾	Not Applicable	-

CANCEL

PREVIOUS

NEXT

8. In the "Compute Policies" section, the distribution of compute resources by Virtual Machine will be displayed.

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Compute Policies

Configure the VM compute policies for each VM.

Virtual Machines	VM Placement / vGPU Policy	VM Sizing Policy
testwin	USMIA01P-VM	gp.custom
Compute		
Placement Policy	USMIA01P-VM	
Sizing Policy	gp.custom	
Virtual CPUs	4	
Cores per socket	2	
Number of sockets	2	
Memory	3	GB

1 - 2 of 2 VM template(s)

CANCEL

PREVIOUS

NEXT

9. in the "Customize Hardware " section the storage distribution per virtual machine is displayed

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Customize Hardware

Review the hardware of the virtual machines in this vApp

Virtual Machine	Storage				
testwin	<div>Hard Disks</div> <table><thead><tr><th>Name</th><th>Size</th></tr></thead><tbody><tr><td>Hard disk 1</td><td>50 GB</td></tr></tbody></table>	Name	Size	Hard disk 1	50 GB
Name	Size				
Hard disk 1	50 GB				
ubutest					

2 item(s)

CANCEL

PREVIOUS

NEXT

10. In the "Network Configuration" section, enter the network to which you want to associate the NICs of the Virtual Machines, by default the VLAN that the source virtual machines are assigned is pre-selected, click on next.

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Configure Networking

Select the networks to which you want each virtual machine to connect. You can configure additional properties for virtual machines after you complete this wizard.

☐ Switch to the advanced networking workflow

Virtual Machines	Computer Name	Primary NIC	Network
testwin	testwin	<input checked="" type="radio"/> NIC 0	test <input type="button" value="v"/> IP Pool
ubutest	ubutest	<input checked="" type="radio"/> NIC 0	test <input type="button" value="v"/> IP Pool

CANCEL

PREVIOUS

NEXT

11. Finally, a summary will be displayed with the configuration of the vApp to be created, click on Finish.

Create vApp from Template

1 Select Template To Import

2 Select Name

3 Configure Resources

4 Compute Policies

5 Customize Hardware

6 Configure Networking

7 Ready to Complete

Ready to Complete

You are about to create a vApp with these specifications. Review the settings and click finish.

vApp Template	testvapp
VDC	USMIA01P-US1138177P1368671
vApp name	Nueva vApp
vApp description	prueba desde template
Runtime lease	Never Expires
Storage lease	Never Expires
Networks	test

VM	Storage Policy	VM Placement / vGPU Policy	VM Sizing Policy	CPUs	Memory	Storage
testwin	SSDPremium	USMIA01P-...	gp.custom	4	3 GB	50 GB
ubutest	SSDPremium	USMIA01P-...	gp.custom	1	2 GB	20 GB

CANCEL

PREVIOUS

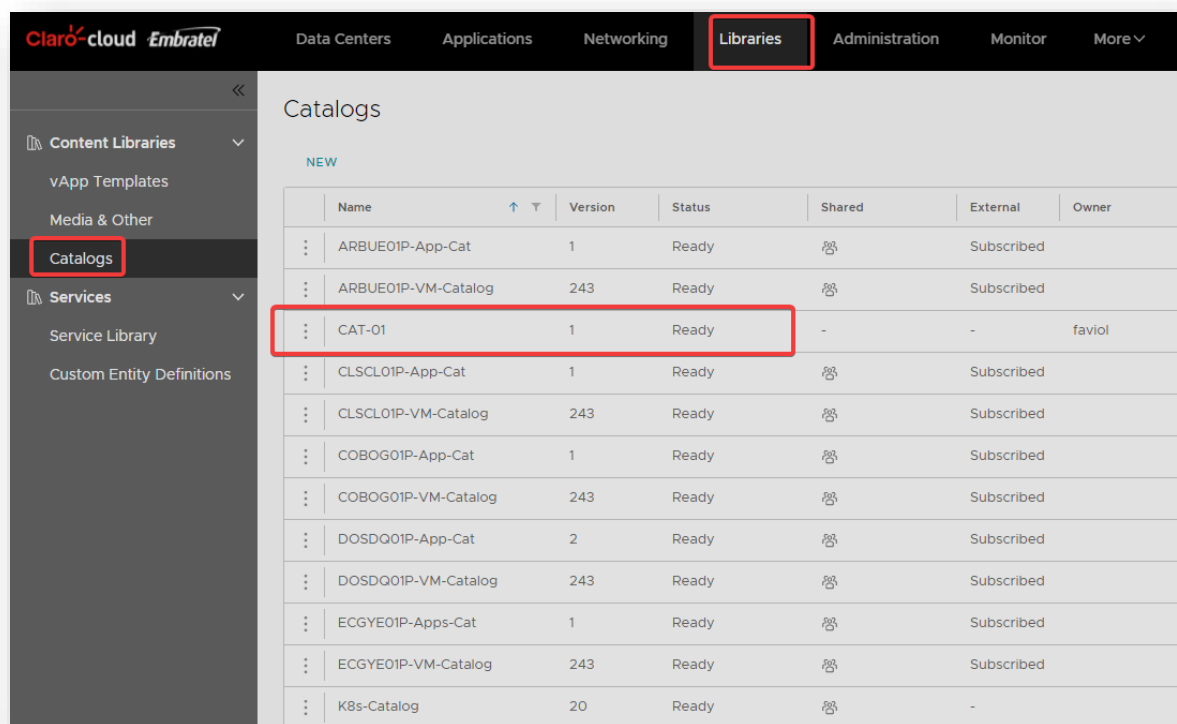
FINISH

Share a catalog

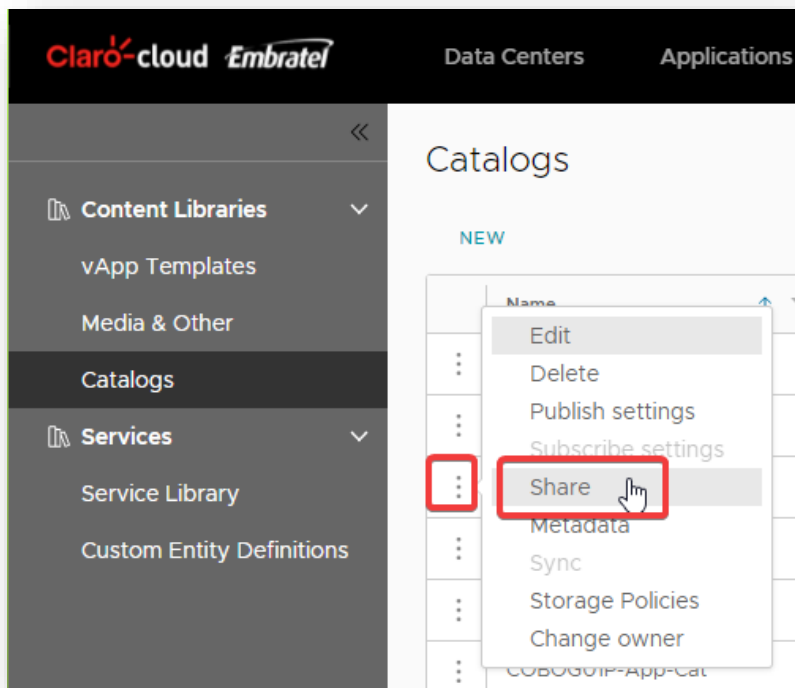
You can share a catalog with all members of the organization or with someone in particular. This requires being the owner of the catalog and having the appropriate permissions.

Below are the steps to follow to perform this process:

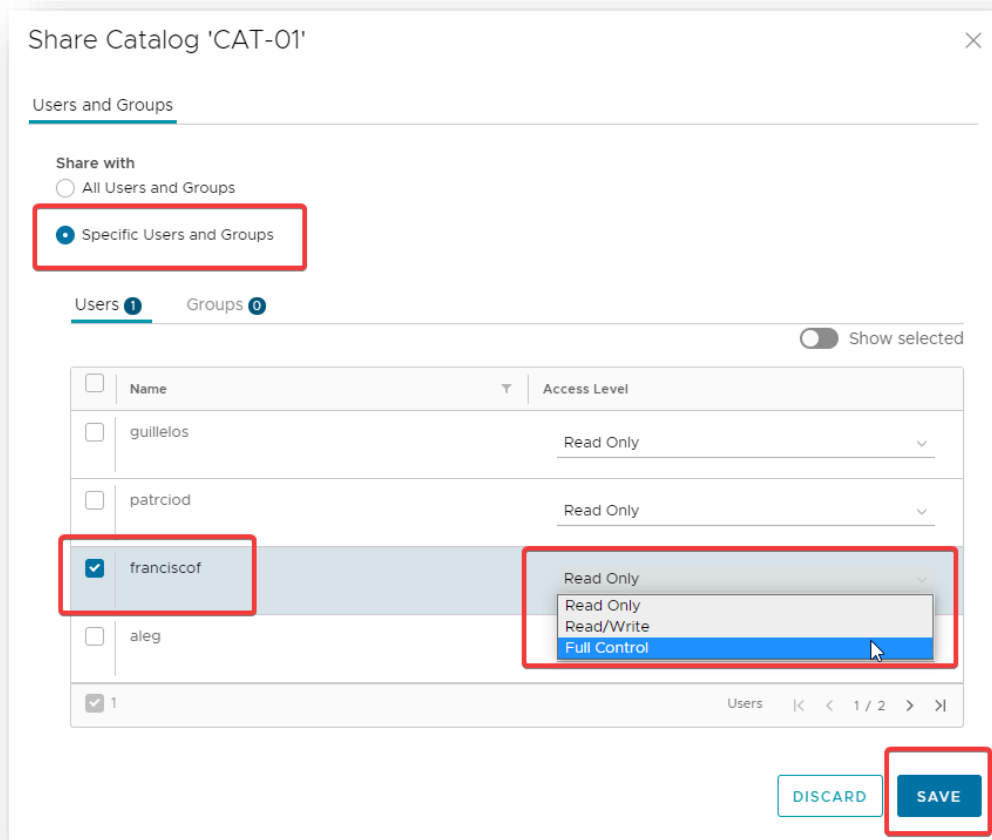
1. On the main menu, click Libraries, select catalogs in the left pane, and then select the catalog you want to share.



2. Select "Share" from the 3-dots menu



3. The following form will appear, select if you want to share with all users and groups or a specific member. You can also set the permission level assigned to the catalog. At the end of clicking on "Save"
- Read-only
 - Read/ Write
 - Full Control



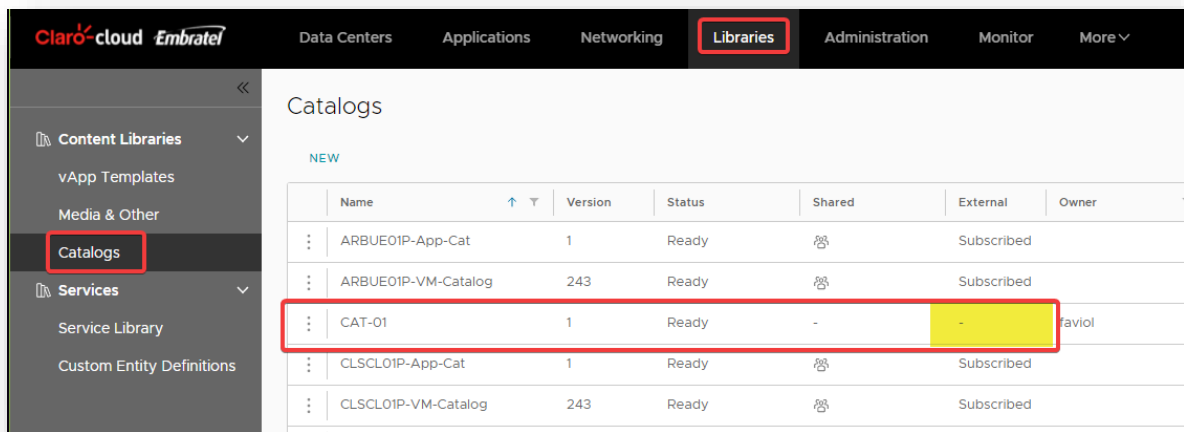
Delete a catalog

In the event that you need to delete any catalogs from your organization, follow these steps:

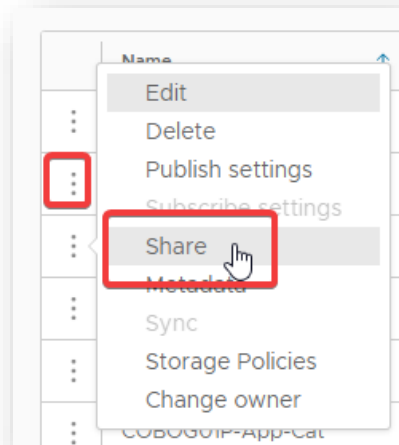
Important:

- If there is a template or media in the catalog, you must move these items to another catalog before deleting it.
- Public catalogs added by default cannot be deleted

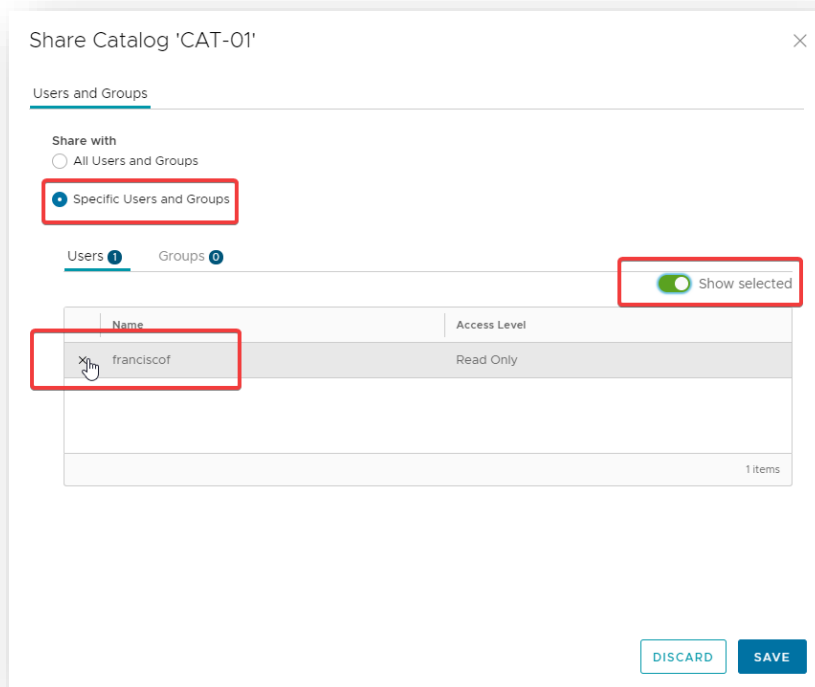
1. On the main menu click Libraries, then click Catalogs and verify that the catalog is not shared.



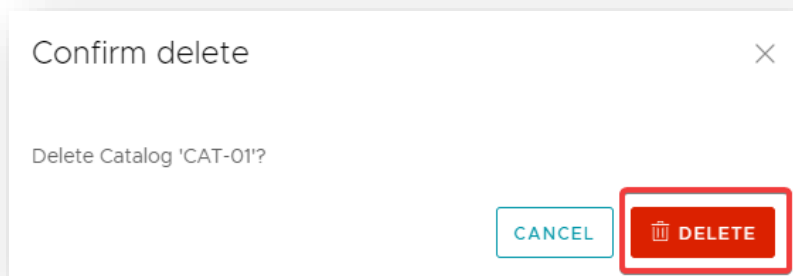
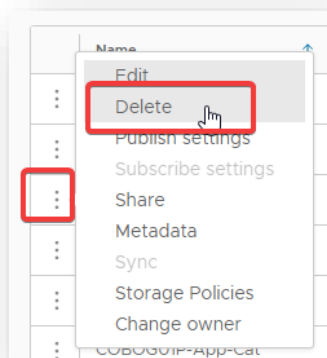
2. If the catalog is shared, select the "Share" option to be able to remove permissions from shared users



3. Select the Show Selection button to the right, to determine which user or group has permissions, click the "X" to remove, and then click "Save".



4. Once confirmed that the catalog is not shared, click on the 3-dot menu and click "Delete"



9. Create a Kubernetes cluster

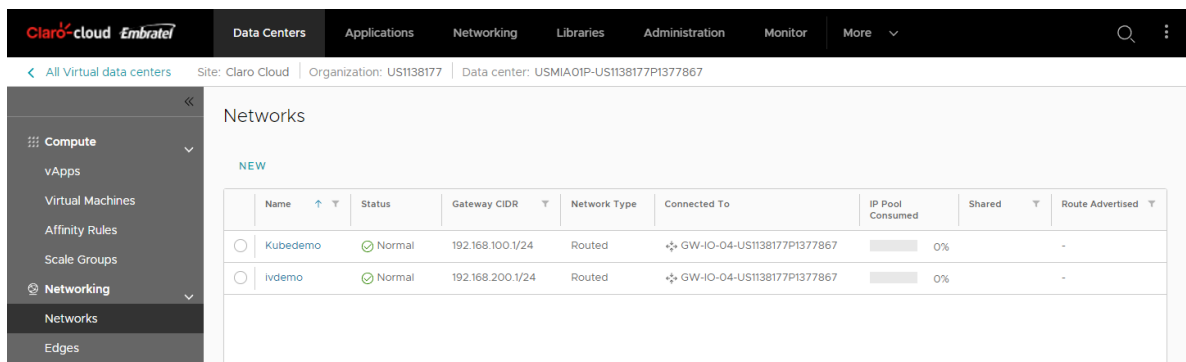
In this section you will find instructions for deploying Kubernetes clusters based on a VMware Tanzu Kubernetes Grid. If you do not have the plugin active, it is necessary to contact Claro Cloud technical support to enable it.

Prerequisites for installing a Kubernetes cluster

To create a Kubernetes cluster, you must pre-deploy the following:

Before you start the cluster provisioning process, it is important to implement the following steps:

1. It is necessary to configure an additional "Routed" type network, with which the cluster and its nodes will be linked. Important, this network must have access to the Internet and the network name must not match any of the existing networks.
 - 1.1. Within the Data Center control panel, go to the Networks section, click on the "New" button



- 1.2. Enter the following parameters

Item	Description
Scope	<ol style="list-style-type: none">1. Select Organization Data Center2. Select the Data Center where your Cluster will be provisioned
Network Type	Select "Routed"
Edge Connection	<ol style="list-style-type: none">1. Select the Edge Gateway where the network will be created, this Edge must be hosted in the Data Center you previously chose2. Leave "Guest VLAN Allowed" off
General	<ol style="list-style-type: none">1. Enter the name of the network, it must be different from any existing network2. Optionally enter a short description3. Keep "Dual-Stack Mode" off4. Enter an IP and network mask, which will serve as a Gateway within the network, e.g. 192.168. 50.1/24
Static IP Pool	Enter the static IP group to be assigned within the network, e.g. 192.168.50.2 – 192.168.50.20

DNS	<p>Mandatorily, it is necessary to enter the primary and secondary DNS, in case of not having a specific service enter the following parameters:</p> <ol style="list-style-type: none">1. Primary DNS: 8.8.8.82. Secondary DNS: 8.8.4.43. DNS suffix: leave blank
-----	---

New Organization VDC Network

- 1 Scope
- 2 Network Type
- 3 Edge Connection
- 4 General
- 5 Static IP Pools
- 6 DNS
- 7 Ready to Complete

Ready to Complete

Scope

Site	Claro Cloud
Scope	ECGYE01P-PR1148055P1374613

General

Name	Kube
Description	-
Network Type	Routed
Connection	GW-IO-02-PR1148055P1374613
Distributed Routing	Active
Guest VLAN Allowed	No

Gateway CIDR

Dual-Stack Mode	No
Gateway CIDR	192.168.50.1/24

Static IP Pools

Static IP Pools	192.168.50.2 - 192.168.50.20
-----------------	------------------------------

DNS

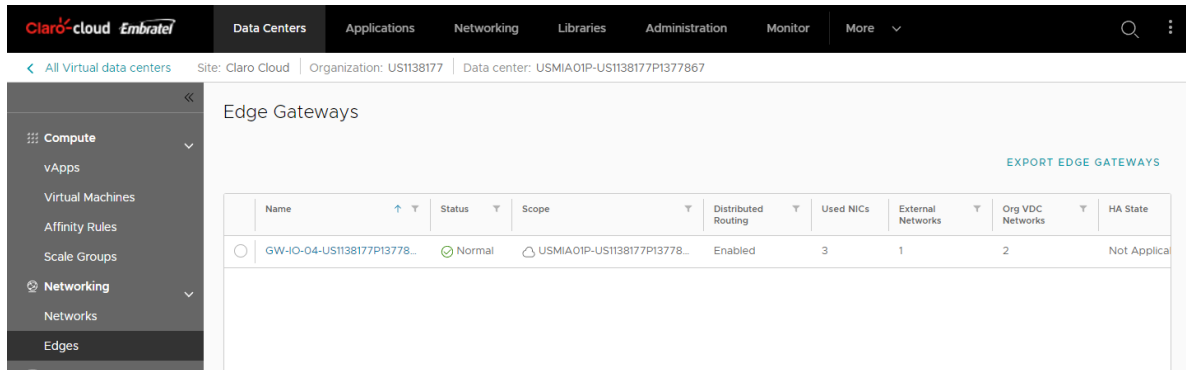
Primary DNS	8.8.8.8
Secondary DNS	8.8.4.4
DNS suffix	-

CANCEL

PREVIOUS

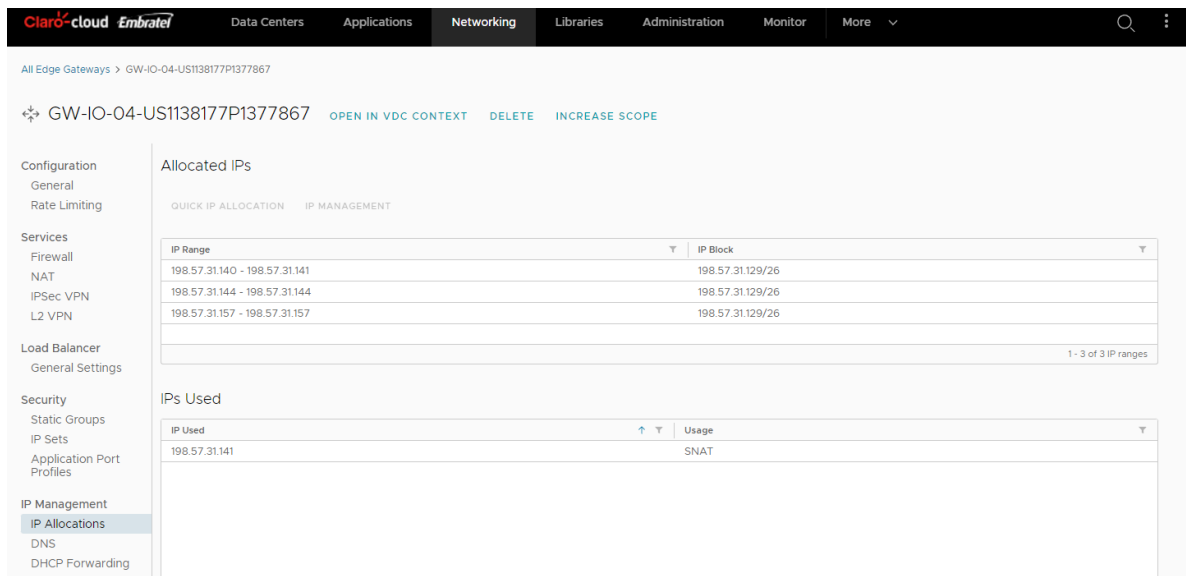
FINISH

2. It is necessary to have at least 3 free public IPs, this because to validate the availability of your IPs follow the following steps:
 - 2.1. Enter the Networking section, click on the "Edge Gateways" section and select the Edge instance of the Data Center where you want to install the cluster

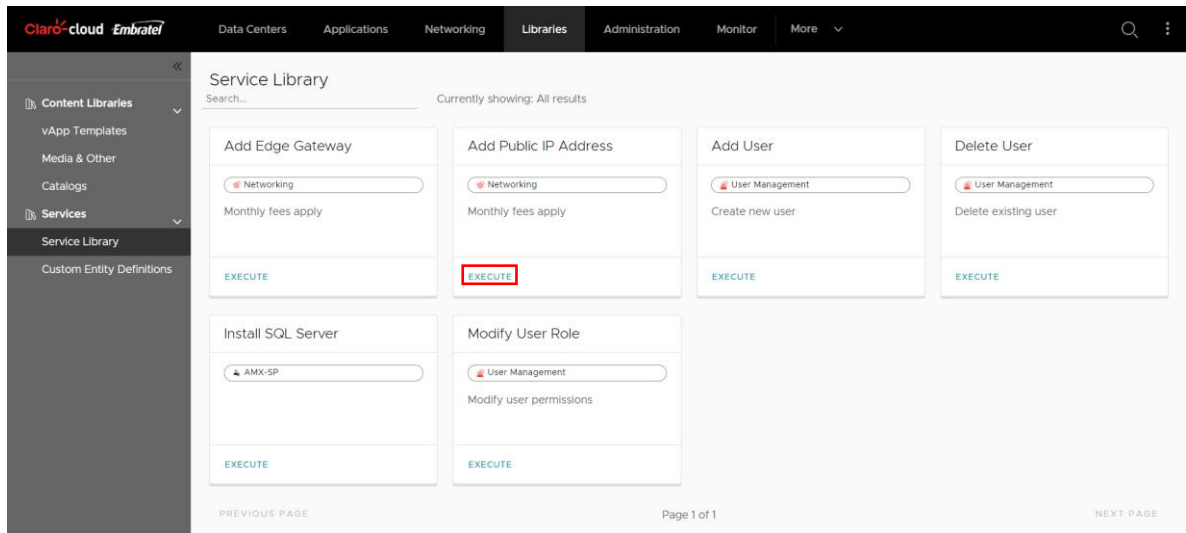


- 2.2. By clicking on the IP "Allocation" option in the "IP Management" section, the following information will be displayed:

Item	Description
Allocated IPs	this section lists all public IPs hosted on your edge instance
IPs Used	this section shows which public IPs are in use and what task it is being used for



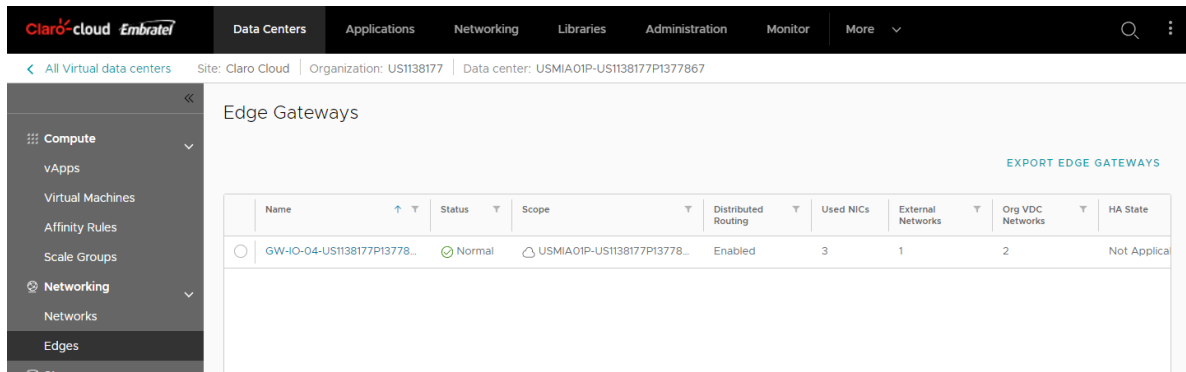
- 2.3. If you do not have unused public IPs, enter the "Libraries" section and click on the "Service Libraries" option, in the box that says "Add Public IP Address" by clicking on the "Execute" button



- 2.4. A box will open where you must enter the Edge Gateway to which you want to add new IPs and the number of Public IPs you want to add (at least 2, one IP will be occupied for the configuration of an SNAT and the second is required to be left free to associate it with the cluster during the provisioning process)

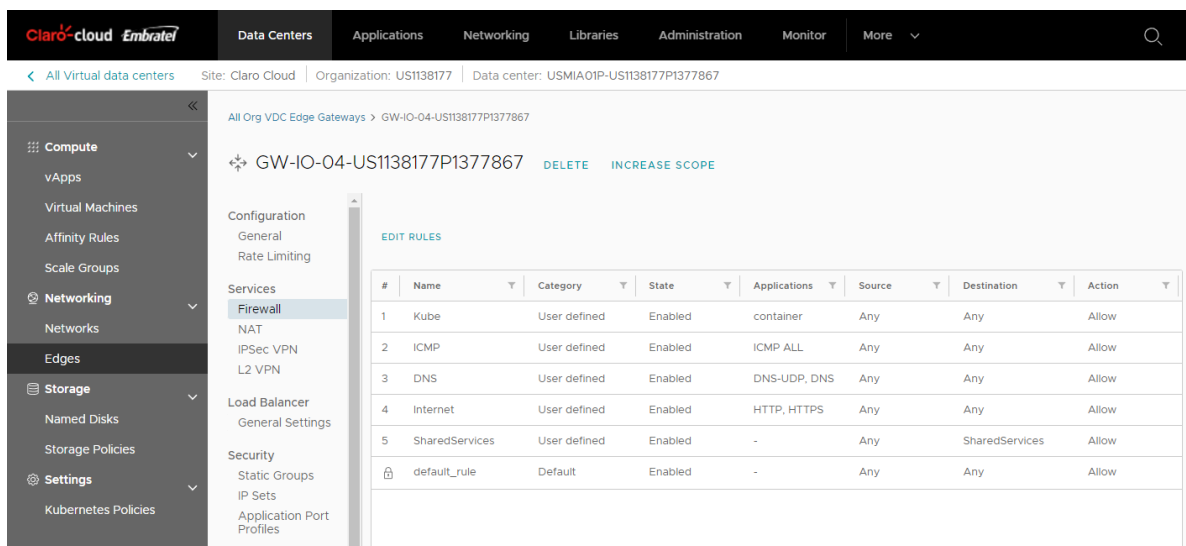
Important: For each cluster that you want to configure, you must have a public IP available

3. Enable firewall rules to allow traffic to the created network (step 1) to the Internet through ports 443, 80, and 6443.
- 3.1. Go to Data Center, click on the "Edge Gateways" section and select the Edge instance of the Data Center where you want to install the cluster



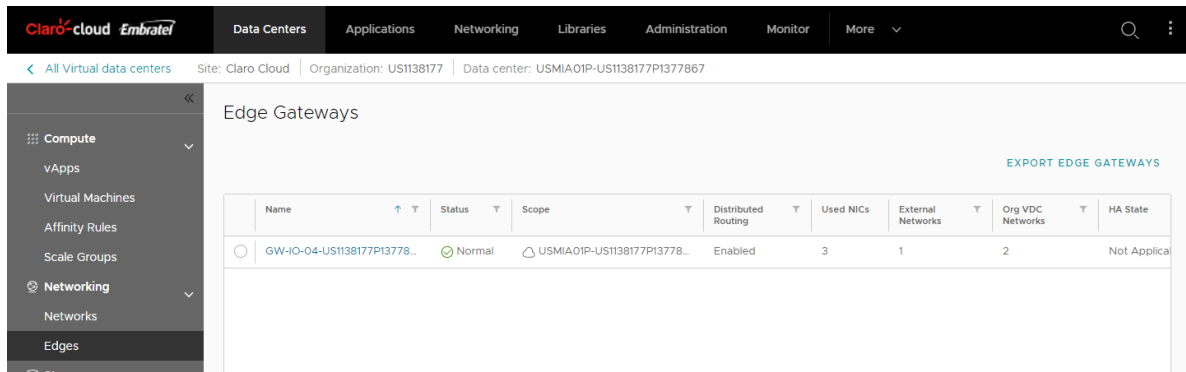
- 3.2. Select the option of "Firewall" and click on the "Edit Rules" button, add a policy where traffic is allowed through ports 443, 80 and 6443, for more details on how to configure a firewall rule see the following section "[Configuring Firewall rules](#)"

Note: It is advisable to have the following protocols enabled: DNS, ICMP

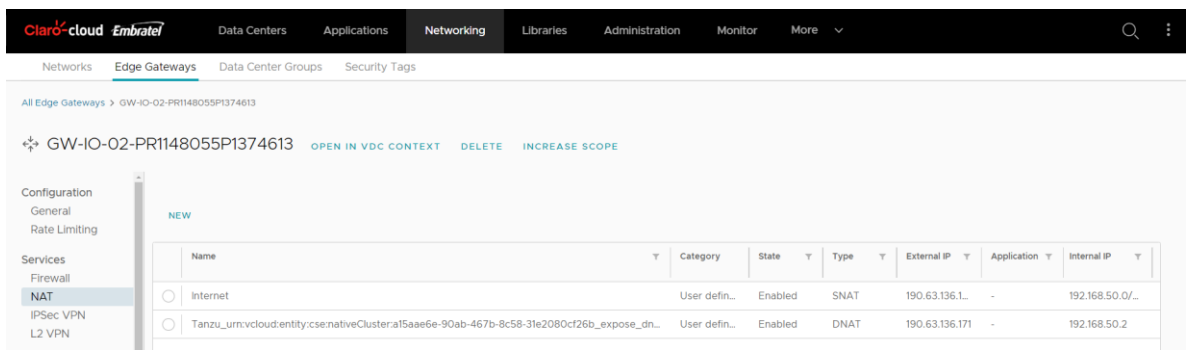


Important: Ports are listed as applications, so port 443 is categorized as HTTPS, port 80 as HTTP and port 6443 as it is not a known port, it is necessary to configure a new profile, see the section "[Configuration of application port profiles](#)"

4. Enable SNAT rule to allow traffic to the Internet, it is important to consider that it is not possible to use 0.0.0.0/0 as an internal network, it is necessary to enter the segment of the specific VLAN.
 - 4.1. Go to Data Center, click on the "Edge Gateways" section and select the Edge instance of the Data Center where you want to install the cluster



4.2. Select the option of "NAT" and click on the "New" button



4.3. Add a rule of type SNAT, where the External IP parameter is the public IP to be assigned to the cluster, the Internal IP must be the segment of the routed VLAN that will be destined for the cluster configuration.

×

Edit NAT Rule

Name *

Internet

Description

Interface Type *

SNAT

External IP *

198.57.31.141

Translated IP or CIDR

Internal IP *

192.168.100.0/24

Source IP or CIDR

Destination IP

> ⚙️ Advanced Settings

DISCARD

SAVE

Create a Kubernetes cluster

1. In the main menu, select the "More" option, in the submenu choose the option "Kubernetes Container Cluster"

Claró-cloud

Centros de datos

Aplicaciones

Redes

Bibliotecas

Administración

Supervisar

Más ▾

Kubernetes Container Clusters

NEW RESIZE DOWNLOAD KUBE CONFIG DELETE

	Name	Status	Kubernetes Provider	Kubernetes Version
<input type="radio"/>	test	UPDATE:SUCCEEDED	Native	1.21.2

Availability (VCDA-DOSDQ)

Autoscale

App Launchpad

Availability (VCDA-BRSP0)

Kubernetes Container Clusters

Operations Manager

Paseos guiados

2. To start deploying a new cluster click "New"

Claró-cloud Embratel

Data Centers

Applications

Networking

Libraries

Administration

Monitor

More ▾

🔍

⋮

Kubernetes Container Clusters

NEW RESIZE DOWNLOAD KUBE CONFIG UPGRADE DELETE

	Name	Status	Kubernetes Provider	Kubernetes Version	Upgrade	Virtual Data Center	Owner
<input type="radio"/>	Cluster8KP	CREATE:SUCCEEDED	VMware Tanzu Kubernetes Grid	v1.20.8+vmware.1	Not Checked	USMIA0IP-US1138177A1385264	admin.us1138177
<input type="radio"/>	Cluster8KP2	CREATE:SUCCEEDED	VMware Tanzu Kubernetes Grid	v1.21.2+vmware.1	Not Checked	ARBUE0IP-US1138177P1388278	admin.us1138177

3. The following screen will be displayed, click on "Next" to start the configuration

Create New VMware Tanzu Kubernetes Grid Cluster

1 Kubernetes Runtime

2 General

3 Virtual Data Center

4 Compute

5 Storage

6 VDC Network

7 Kubernetes Network

8 Review

Kubernetes Runtime

Select a Kubernetes runtime for the cluster

☒ VMware Tanzu Kubernetes Grid

- ✓ VMware hardened and signed upstream compatible Kubernetes
- ✓ Single-node control plane
- ✓ Named disk-based dynamic provisioning of Persistent Volumes
- ✓ L4 load balancer automation

CANCEL NEXT

Important: The base configuration of a VMware Tanzu Kubernetes Grid Cluster through the control panel can only have 1 Master node and "N" number of Workers nodes.

It is possible to add more master nodes through APIs

4. In the General section, you must specify the cluster name and operating system version with which all nodes within the cluster will be deployed. At the end of clicking on "Next"

Important: The **template** to be selected **must belong to the same country where your Data Center is hosted**. At the beginning of the name of each template you have a prefix of each country

Create New VMware Tanzu Kubernetes Grid Cluster

- Kubernetes Runtime
- General**
- Virtual Data Center
- Compute
- Storage
- Kubernetes Default Storage Class
- VDC Network
- Kubernetes Network
- Review

General

Name ClusterK8s

Kubernetes Template

	Name	Catalog
<input checked="" type="radio"/>	US-ubuntu-2004-kube-v1.22.5+vmware.1-tkg.2-f838b27ca494fee7083c0340e11ce243	K8s
<input type="radio"/>	US-ubuntu-2004-kube-v1.21.8+vmware.1-tkg.2-ed3c93616a02968be452fe1934a1d37c	K8s
<input type="radio"/>	US-ubuntu-2004-kube-v1.21.2+vmware.1-tkg.1	K8s
<input type="radio"/>	US-ubuntu-2004-kube-v1.20.8+vmware.1-tkg.1	K8s
<input type="radio"/>	US-ubuntu-2004-kube-v1.20.14+vmware.1-tkg.2-5a5027ce2528a6229acb35b38ff8084e	K8s

1 - 5 of 48 Kubernetes Templates < 1 / 10 >

SSH Public Key (Optional)

CANCEL BACK NEXT

Note: In the "Name" column you can see the Kube version integrated into the template.

- Select the Data Center where the cluster will be deployed, click on "Next"

Create New VMware Tanzu Kubernetes Grid Cluster

- Kubernetes Runtime
- General
- Virtual Data Center**
- Compute
- Storage
- Kubernetes Default Storage Class
- VDC Network
- Kubernetes Network
- Review

Virtual Data Center

Select a virtual data center for the cluster

	Name	Organization
<input type="radio"/>	USMIA01P-US1138177P1368671	US1138177
<input type="radio"/>	USMIA01P-US1138177A1385264	US1138177
<input type="radio"/>	ARBUE01P-US1138177P1388278	US1138177
<input checked="" type="radio"/>	USMIA01P-US1138177P1377867	US1138177

1 - 4 of 4 Virtual Data Centers

CANCEL BACK NEXT

- Define the number of worker nodes that will be provisioned within the cluster, as well as the size of both Control Plane and Workers nodes. At the end of clicking Next

Important: Node sizes should not be less than 2 vCPUs and 4 GB RAM

Create New VMware Tanzu Kubernetes Grid Cluster

1 Kubernetes Runtime

2 General

3 Virtual Data Center

4 Compute

5 Storage

6 Kubernetes Default Storage Class

7 VDC Network

8 Kubernetes Network

9 Review

Compute

Input number of worker nodes, and select compute settings for the nodes

Number of Control Plane Nodes

1

Number of Worker Nodes

2

Select compute settings for control plane nodes (optional)

☒ Sizing Policy

☐ CPU & Memory

	Name	Description
<input type="radio"/>	gp.medium-01	CPU: 4 - Memory: 8 GB
<input checked="" type="radio"/>	gp.small-02	CPU: 2 - Memory: 8 GB
<input type="radio"/>	gp.large-02	CPU: 16 - Memory: 64 GB
<input type="radio"/>	gp.xlarge-02	CPU: 32 - Memory: 128 GB
<input type="radio"/>	gp.large-01	CPU: 16 - Memory: 32 GB
<input type="radio"/>	gp.xlarge-01	CPU: 32 - Memory: 96 GB
<input type="radio"/>	gp.custom	CPU: 1-128 - Memory: 1-2048 GB
<input type="radio"/>	gp.small-01	CPU: 2 - Memory: 4 GB

CANCEL

BACK

NEXT

Note: Workers nodes are created the same size, we can vary the size within the cluster creation process

- Enterprise Claro Cloud has high-performance SSD disks, so it will assign this storage policy by default. At the end of clicking on "Next"

Create New VMware Tanzu Kubernetes Grid Cluster

1 Kubernetes Runtime

2 General

3 Virtual Data Center

4 Compute

5 Storage

6 VDC Network

7 Kubernetes Network

8 Review

Storage

Select storage profiles for the nodes

Storage profile for control plane nodes (optional)

	Name	Status	Default	Used	Limit
<input type="radio"/>	SSDPremium	Enabled	Yes	73728 MB	Unlimited

1 - 1 of 1 Storage Policy

Storage profile for worker nodes (optional)

	Name	Status	Default	Used	Limit
<input type="radio"/>	SSDPremium	Enabled	Yes	73728 MB	Unlimited

CANCEL

BACK

NEXT

- In "Kubernetes Default Storage Class" section, enter the following. At the end of clicking on "Next"

Item	Description
Storage profile for storage class	Select Premium SSD

Kubernetes storage class name	Enter the name of the storage class
Storage class reclaim policy	<ul style="list-style-type: none"> • Delete Policy – During the cluster erasure process, storage is included • Retain Policy – If a cluster is allocated separate disks, it does not delete any volumes at the time of deleting the cluster <p>Recommendation keep "Delete Policy" selected</p>
Filesystem	Select format type

Create New VMware Tanzu Kubernetes Grid Cluster

- Kubernetes Runtime
- General
- Virtual Data Center
- Compute
- Storage
- Kubernetes Default Storage Class**
- VDC Network
- Kubernetes Network
- Review

Kubernetes Default Storage Class

Configure a default storage class for the Kubernetes cluster

☒ Create default storage class

Storage profile for storage class

	Name	Status	Default	Used	Limit
<input type="radio"/>	SSDPremiu...	Enabled	Yes	0 MB	Unlimited
1 - 1 of 1 Storage Policy					

Kubernetes storage class name

Storage class reclaim policy

☒ Delete Policy ☐ Retain Policy

This policy is used by default. It deletes the object when the PersistentVolumeClaim is deleted.

Filesystem

☒ ext4 ☐ xfs

"ext4" is the default filesystem used for the storage class

CANCEL BACK NEXT

9. Select the network previously created at the beginning of this process, as the main feature, this network must have output to the Internet. At the end of clicking on "Next"

Create New VMware Tanzu Kubernetes Grid Cluster

1 Kubernetes Runtime

2 General

3 Virtual Data Center

4 Compute

5 Storage

6 Kubernetes Default Storage Class

7 VDC Network

8 Kubernetes Network

9 Review

VDC Network

Select a virtual data center network for the cluster

☒ Allow external traffic to be routed to this cluster

	Name	Gateway CIDR	IP Usage
<input checked="" type="radio"/>	Kubedemo	192.168.100.1/24	0.00% (in use: 0, capacity: 29)
<input type="radio"/>	ivdemo	192.168.200.1/24	0.00% (in use: 0, capacity: 39)
1 - 2 of 2 networks			

CANCEL

BACK

NEXT

10. The internal networks that will be assigned to the cluster will be displayed, keep the default parameters.

Create New VMware Tanzu Kubernetes Grid Cluster

1 Kubernetes Runtime

2 General

3 Virtual Data Center

4 Compute

5 Storage

6 VDC Network

7 Kubernetes Network

8 Review

Kubernetes Network

Configure network settings for Kubernetes pods and services

Pods CIDR

100.96.0.0/11

RESTORE DEFAULT

Services CIDR

100.64.0.0/13

RESTORE DEFAULT

CANCEL

BACK

NEXT

11. A summary with the cluster configuration will be displayed by clicking on "Finish"

Create New VMware Tanzu Kubernetes Grid Cluster

- Kubernetes Runtime
- General
- Virtual Data Center
- Compute
- Storage
- VDC Network
- Kubernetes Network
- Review**

Review

You are about to create a new Kubernetes cluster with these settings

Cluster Name	Tanzu
Kubernetes Runtime	VMware Tanzu Kubernetes Grid
Kubernetes Template	US-ubuntu-2004-kube-v1.22.5
Virtual Data Center	ECGYE01P-PR1148055P1374613
Number of Control Plane Nodes	1
Control Plane - Storage Profile	SSDPremium
Number of Worker Nodes	2
Worker - Storage Profile	SSDPremium
VDC Network	Kube
Kubernetes Pods CIDR	100.96.0.0/11

CANCEL
BACK
FINISH

Kubernetes Cluster Access

- Once the creation process is finished, select your cluster and click on "Download Kube Config", this file contains the necessary information for you to enter your cluster.

Kubernetes Container Clusters							
NEW RESIZE DOWNLOAD KUBE CONFIG UPGRADE DELETE							
	Name	Status	Kubernetes Provider	Kubernetes Version	Upgrade	Virtual Data Center	Owner
<input type="radio"/>	ClusterBKP	CREATE-SUCCEEDED	VMware Tanzu Kubernetes Grid	v1.20.8+vmware.1	Not Checked	USMIA01P-US1138177A1385264	admin.us1138177
<input type="radio"/>	ClusterBKP2	CREATE-SUCCEEDED	VMware Tanzu Kubernetes Grid	v1.21.2+vmware.1	Not Checked	ARBUE01P-US1138177P1388278	admin.us1138177
<input checked="" type="radio"/>	ClusterK8s	CREATE-SUCCEEDED	VMware Tanzu Kubernetes Grid	v1.22.5+vmware.1	Not Available	USMIA01P-US1138177P1377867	admin.us1138177

- It is necessary to download the Kubectl package to your computer, then links to the installation process according to each operating system:
 - Windows - <https://kubernetes.io/docs/tasks/tools/install-kubectl-windows/>
 - MacOS - <https://kubernetes.io/docs/tasks/tools/install-kubectl-macos/>
 - Linux - <https://kubernetes.io/docs/tasks/tools/install-kubectl-linux/>
- Once Kubectl is installed, the client will be able to enter through the Kubeconfig file, to validate the nodes of its cluster and execute the command

Kubectl --kubeconfig=< Name_of_the_downloaded_file.txt> get node

```
Windows PowerShell
Copyright (C) Microsoft Corporation. Todos los derechos reservados.

Prueba la nueva tecnología PowerShell multiplataforma https://aka.ms/pscore6

PS C:\Users\ionly> kubectl --kubeconfig=kubeconfig-ClusterK8s.txt get node
NAME          STATUS    ROLES          AGE    VERSION
mstr-w2qc     Ready    control-plane,master  19m    v1.22.5+vmware.1
node-rrej     Ready    <none>         15m    v1.22.5+vmware.1
node-ul7g     Ready    <none>         13m    v1.22.5+vmware.1
PS C:\Users\ionly>
```

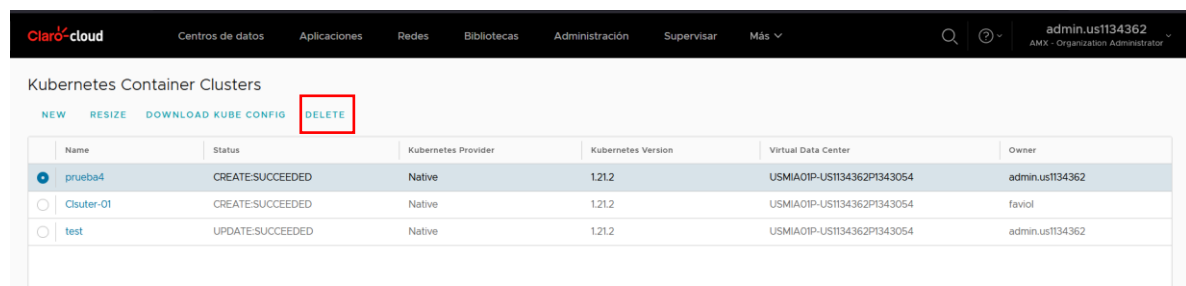
2.2 To display the status of your pods, run the command

Kubectl --kubeconfig=< Name_of_the_downloaded_file.txt > get pods

```
PS C:\Users\ionly> kubectl --kubeconfig=kubeconfig-ClusterK8s.txt get pods -A
NAMESPACE      NAME                                                    READY   STATUS    RESTARTS   AGE
kapp-controller  kapp-controller-76767677c9-p4b22                     1/1     Running   0           18m
kube-system     antrea-agent-69hl2                                     2/2     Running   0           18m
kube-system     antrea-agent-6dc7j                                     2/2     Running   0           16m
kube-system     antrea-agent-dlhfh                                     2/2     Running   0           22m
kube-system     antrea-controller-88d6878dc-d5c8k                    1/1     Running   0           22m
kube-system     coredns-6457cdfcd6-gkfc1                             1/1     Running   0           22m
kube-system     coredns-6457cdfcd6-qwnfj                             1/1     Running   0           22m
kube-system     csi-vcd-controllerplugin-0                            3/3     Running   0           22m
kube-system     csi-vcd-nodeplugin-k5645                             2/2     Running   0           18m
kube-system     csi-vcd-nodeplugin-pjflv                             2/2     Running   0           16m
kube-system     etcd-mstr-w2qc                                         1/1     Running   0           22m
kube-system     kube-apiserver-mstr-w2qc                              1/1     Running   0           22m
kube-system     kube-controller-manager-mstr-w2qc                    1/1     Running   0           22m
kube-system     kube-proxy-b49w5                                       1/1     Running   0           16m
kube-system     kube-proxy-fqbzr                                       1/1     Running   0           22m
kube-system     kube-proxy-qc57h                                       1/1     Running   0           18m
kube-system     kube-scheduler-mstr-w2qc                              1/1     Running   0           22m
kube-system     metrics-server-854b9b59b-4f861                       1/1     Running   0           14m
kube-system     vmware-cloud-director-ccm-75bd684688-9q286           1/1     Running   0           22m
PS C:\Users\ionly>
```

Delete a Kubernetes cluster

1. To delete the cluster, just select the cluster to delete and click "Delete"



2. Confirm the deletion, click on "Delete"



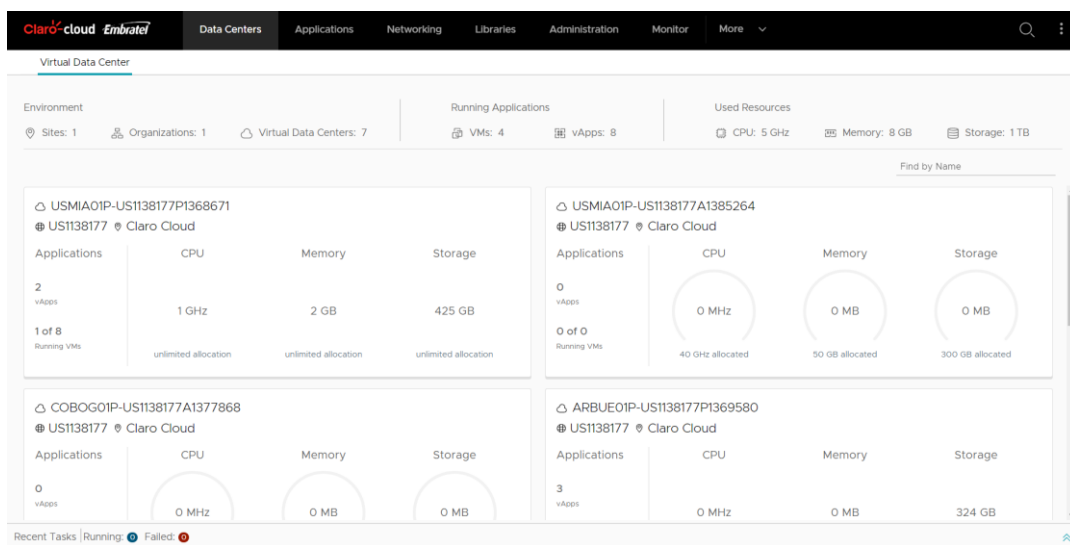
10. Scale Groups (automatic horizontal scaling)

This section will show you the process for configuring scale-out, which will allow you to mitigate workload loads on your infrastructure by automatically adding virtual machines as your application requires.

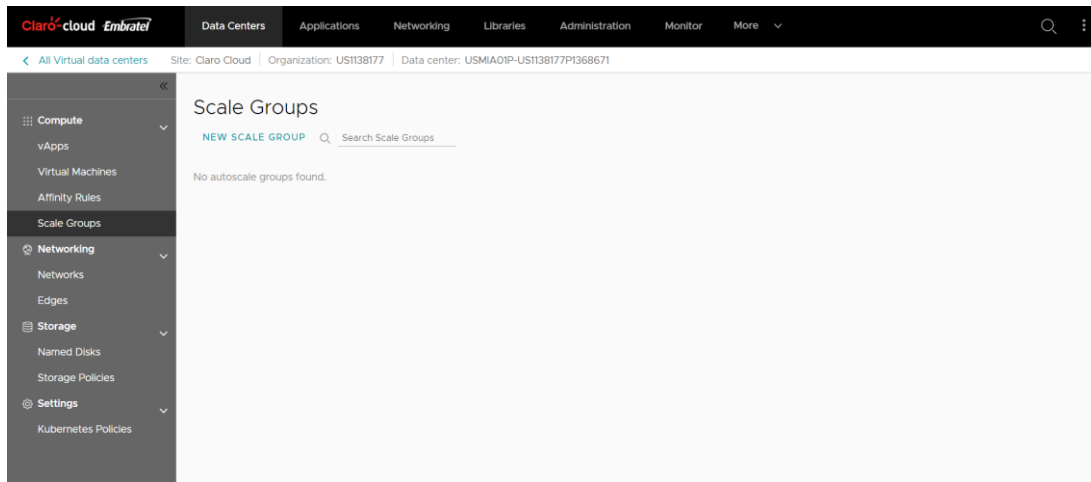
Important: It is important to ensure that the application is adapted and optimized to support automatic scaling.

Additionally, if you want to implement scaling on an already provisioned machine, it is necessary to first create a template. (see how to create a template)

1. Select "Data Center" from the main menu, choose the Data Center where automatic scaling is required.



2. Choose "Scale Groups" in the secondary menu within the Data Center, click on "New Scale Group"



- The following General Settings screen will open where you must enter the following information, at the end of clicking on "Next"

Item	Description
Group Name	Enter the name of the scale group
Group Description	Optionally enter a short description of the scala group
Min VMs	Enter the minimum number of VMs your scale group can have.
Max VMs	Enter the maximum number of VMs your scale group can have.

Create Scale Group

> 1. General Settings

Group Name *

Enter Group Name

Group Description

Enter Group Description

Min VMs *

1

Max VMs *

2

NEXT

2. Application Settings

3. Network

CANCEL

4. In the Application Settings section enter the following information, at the end of clicking on "Next"

Item	Description
Template	Select the template that the group will take as a reference to create the new nodes. Remembering that the new nodes are a faithful copy of the base template.
Storage Policy	Select the type of storage to be allocated to the new virtual machines (only SSD storage is currently available)

Create Scale Group

> 2. Application Settings

	VM Name	vApp Template	Catalog	OS
<input type="radio"/>	bitnami-mediawiki-1.37.1-13-r04-l...	bitnami-mediawiki-1.37.1-13-r04-l...	ARBUE01P-ALP-Cat	Other Linux (64-bit)
<input type="radio"/>	bitnami-suitecrm-7.12.4-5-linux-...	bitnami-suitecrm-7.12.4-5-linux-...	ECGYE01P-ALP-Cat	Other Linux (64-bit)
<input type="radio"/>	bitnami-lappstack-8.0.1-0-r33-lin...	bitnami-lappstack-8.0.1-0-r33-lin...	USMIA01P-ALP-Cat	Other Linux (64-bit)
<input type="radio"/>	.SLES15-SP2	.SUSE Linux Enterprise Server 1...	ARBUE01P-VM-Catalog	SUSE Linux Enterprise 15 (64-bit)
<input checked="" type="radio"/>	.Windows2012R2	.Windows 2012 R2	ARBUE01P-VM-Catalog	Microsoft Windows Server 2012 ...

5 VM Templates 1 / 93

Storage Policy * SSDPremium (Default)

NEXT

CANCEL

5. In the Network section choose the means by which you will link the VMs within the scale group, when you finish clicking on "Create group and add rules"

Item	Description
I have a fully set-up network	Select the network within the data center to which the scale group will be linked.
I have set-up a Load Balancer	<p>If you have the Load Balancing service, you can link your scale group through a balancing pool, just enter:</p> <ul style="list-style-type: none"> • Network CIDR – IP of the gateway within the balancing pool • Edge Gateway – The Edge gateway where the balancing service is hosted. • Server group – Select the balancing pool to which you want to link the scale group

Create Scale Group

> General Settings

> Application Settings

> 3. Network

☒ I have a fully set-up network
 ☐ I have set-up a Load Balancer

Network *

TEST

CREATE GROUP AND ADD RULES

CANCEL

6. Once the Scale Group is created, the following screen will open where you can create your scaling rules, by clicking on "Add rule"

ClaroCloud

Embratel

Data Centers

Applications

Networking

Libraries

Administration

Monitor

More

All Virtual data centers

Site: Claro Cloud

Organization: US1138177

Data center: USMIA01P-US1138177P1368671

Compute

vApps

Virtual Machines

Affinity Rules

Scale Groups

Networking

Networks

Edges

Storage

Named Disks

Storage Policies

Settings

Kubernetes Policies

< All Scale Groups

test

EDIT

DELETE

RESET STATUS

General

Rules

Virtual Machines

Monitor

Rules

ADD RULE

	#	Name	Behavior	VMs	Cooldown	Conditions
<div>No rules found</div>						

0 Rules

7. The next screen will open where you will have to enter the following information, at the end of clicking on "ADD"

Note: You will be able to enter the number of policies and conditions required by your application

Item	Description
Name	Enter the name of the rule to be created.

11. You will be able to monitor the consumption of each resource in your virtual machines through the usage board, enter the "Virtual machines" section by clicking on the name of the VM

The screenshot shows the ClaroCloud Embratel interface. The top navigation bar includes 'Data Centers', 'Applications', 'Networking', 'Libraries', 'Administration', 'Monitor', and 'More'. The left sidebar lists various categories: Compute (vApps, Virtual Machines, Affinity Rules, Scale Groups), Networking (Networks, Edges), Storage (Named Disks, Storage Policies), and Settings (Kubernetes Policies). The main content area is titled 'Virtual Machines' and shows details for a VM named 'test-d5ed4a36-8b26-4a96-af73-ad5c71ca638b'. The details include a table for 'Template Details - .Windows2016' with columns for Virtual Application, CPUs, Memory, Storage, and OS. Below this is a table with columns for Name, Date Created, and Primary IP Address. The VM's name is highlighted with a red box. The bottom right corner indicates 'Virtual Machines per page 5' and '1 - 1 of 1 Virtual Machines'.

12. The next screen will open, click on the "Monitor Chart" option, select the metric and the period you want to view and click on "Refresh"

The screenshot shows the ClaroCloud Embratel interface with the 'Monitor Chart' selected. The top navigation bar includes 'Data Centers', 'Applications', 'Networking', 'Libraries', 'Administration', 'Monitor', and 'More'. The left sidebar lists various categories: Compute (vApps, Virtual Machines, Affinity Rules, Scale Groups), Networking (Networks, Edges), Storage (Named Disks, Storage Policies), and Settings (Kubernetes Policies). The main content area is titled 'test-d5ed4a36-8b26-4a96-af73-ad5c71ca638b' and shows a 'Monitoring Chart' for 'cpu usage average'. The chart displays a line graph with the y-axis labeled 'PERCENT' ranging from 0 to 40 and the x-axis showing time intervals from 6:08 pm to 6:37 pm. The chart is currently showing a steady state around 35-40%. Below the chart, there is a 'Metric: cpu usage' dropdown and a 'Period:' dropdown. A 'REFRESH' button is located at the bottom right of the chart area.

11. User and role management

In this section you can manage access to your organization. Enterprise Claro Cloud allows you to manage, create, and delete users in addition to having predefined roles that will help you with the management of your services properly.

Available user roles

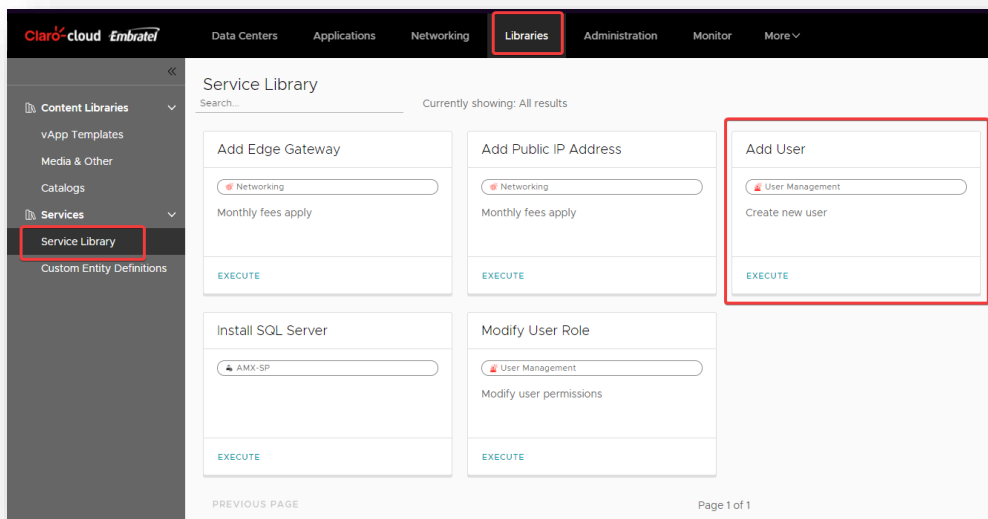
Role	Description
Administrator	Can contract, modify, and cancel VDC on-Demand and Resource Pool subscriptions in countries with available compute regions. You have access only to the Claro Cloud Administration console
Organization Administrator	Can purchase new services through the self-service portal (e.g. Virtual Machines, IP's, Edges). In addition, this role can create modify and delete resources instances networks within a vdc and private catalogs. Has access to administrative and billing information. Can create, manage, and modify users and roles in your organization.
Technical Administrator	Can create instances, applications, and manage deployed IaaS resources, as well as be able to configure networks within a VDC. Role cannot: purchase additional resources within the self-service portal, change administrative information, modify resource limits, change roles, or add additional users.
Compute Administrator	Can create new instances within a Virtual Data Center, and you can manage and modify existing instances.
Network Administrator	Can manage functionality within T1 Edge Gateway instances, such as creating new VLANs, managing and creating Firewall and NAT rules, generating IPSec and L2 VPN connections.
Staff-Read Only	Can view instance configuration parameters, network, and monitor status. Role cannot generate new instances, delete or change instance configuration parameters, or perform administrative tasks.

Create a user

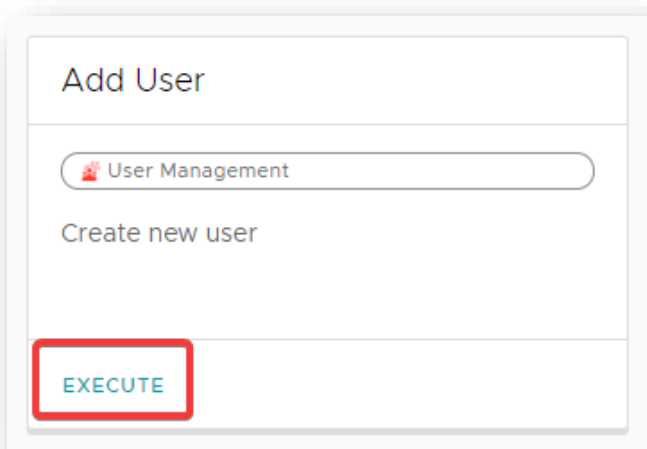
To create users within the Claro Cloud platform, perform the following process

Note: This action can only be performed by an Organization Administrator

1. Select "Libraries" from the main menu, from the left menu select "Service Library"



2. Locate the "Add User" box and click the "Execute" button



3. The next screen will be displayed, enter the required information. At the end of clicking on "Finish"

Item	Description
Username	User Name
Email	User email, it is possible to assign more than one user the same email
First Name	First name
Last Name	Surname
User Role	Role within the organization

Add User

1 Step 1

Step 1

Username * ⓘ jsmith

Email * ⓘ jsmith@claro.com

First Name * ⓘ Jhon

Last Name * ⓘ Smith

User Role * ⓘ

- AMX - Organization Administrator
- AMX - Organization Administrator
- AMX - Technical Administrator
- AMX - Staff-Read Only

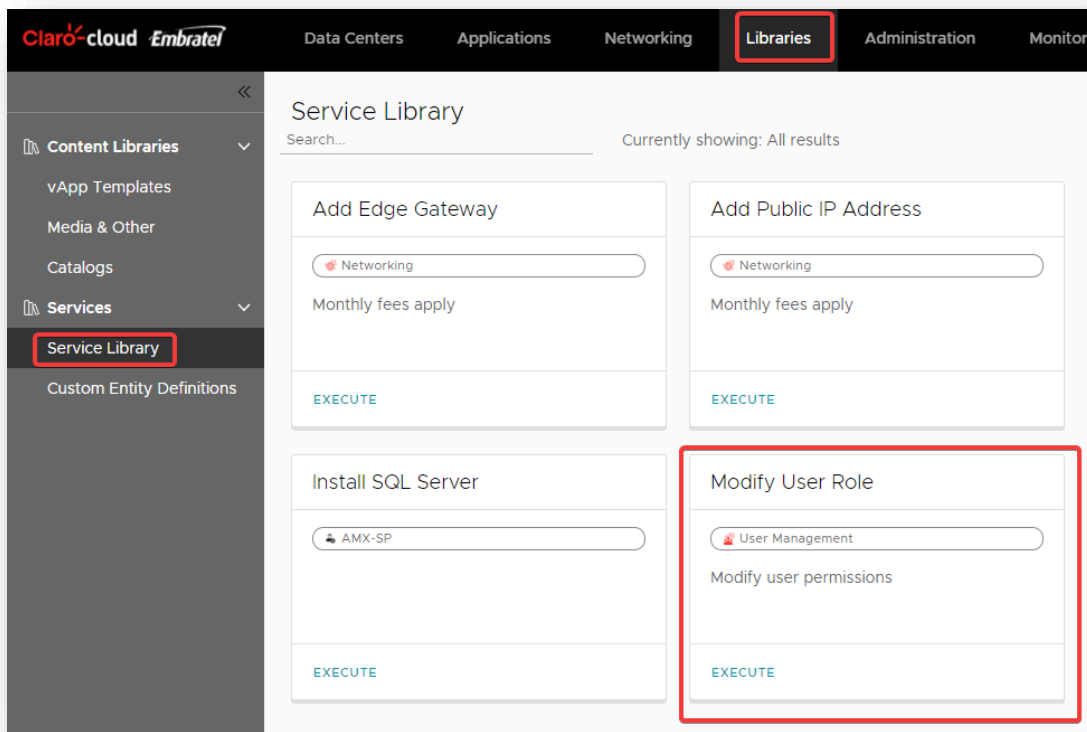
CANCEL FINISH

Modify a user's role

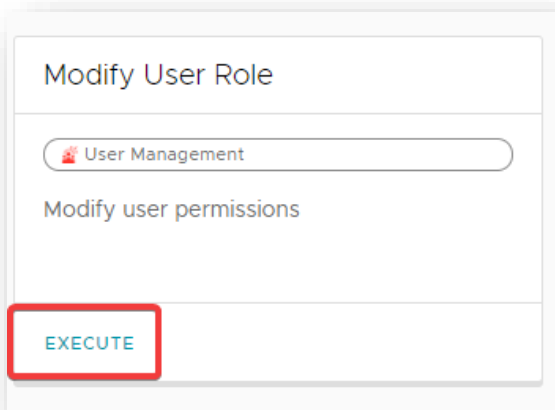
You can modify a user role that was previously assigned to a created user

Note: this action can only be performed by an Organization Administrator

1. Select "Libraries" from the main menu, from the left menu select "Service Library"



2. Locate the "Modify User Role" box and click the "Execute" button



3. The next screen will be displayed, enter the required information. At the end of clicking on "Finish"

Item	Description
Username	Lists users created in your organization
Role	New role to assign

Modify User Role

Step 1

1 Step 1

Username * ⓘ jsmith

Role * ⓘ

AMX - Organization Administrator
AMX - Organization Administrator
AMX - Technical Administrator
AMX - Staff-Read Only

CANCEL

FINISH

Delete a user

Note: This action can only be performed by an Organization Administrator

1. Select "Libraries" from the main menu, from the left menu select "Service Library"

ClaroCloud

Embratel

Data CentersApplicationsNetworkingLibrariesAdministrationMonitorMore

Content Libraries

vApp Templates

Media & Other

Catalogs

Services

Service Library

Custom Entity Definitions

Service Library

Search...Currently showing: All results

Add Edge Gateway

Networking

Monthly fees apply

EXECUTE

Add Public IP Address

Networking

Monthly fees apply

EXECUTE

Add User

User Management

Create new user

EXECUTE

Delete User

User Management

Delete existing user

EXECUTE

Install SQL Server

AMX-SP

EXECUTE

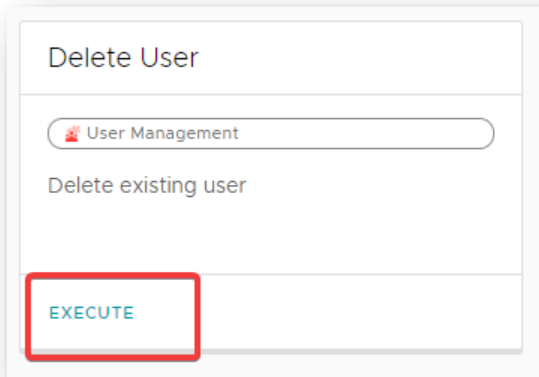
Modify User Role

User Management

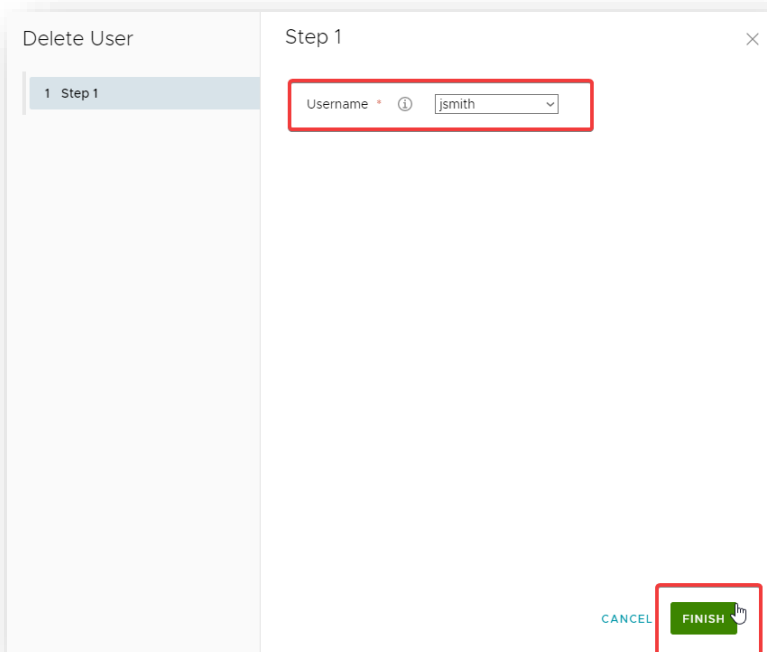
Modify user permissions

EXECUTE

2. Locate the "Delete User" box and click the "Execute" button



3. The following screen will be displayed, where the active users in the organization will be listed, select the user to delete, click on "Finish"

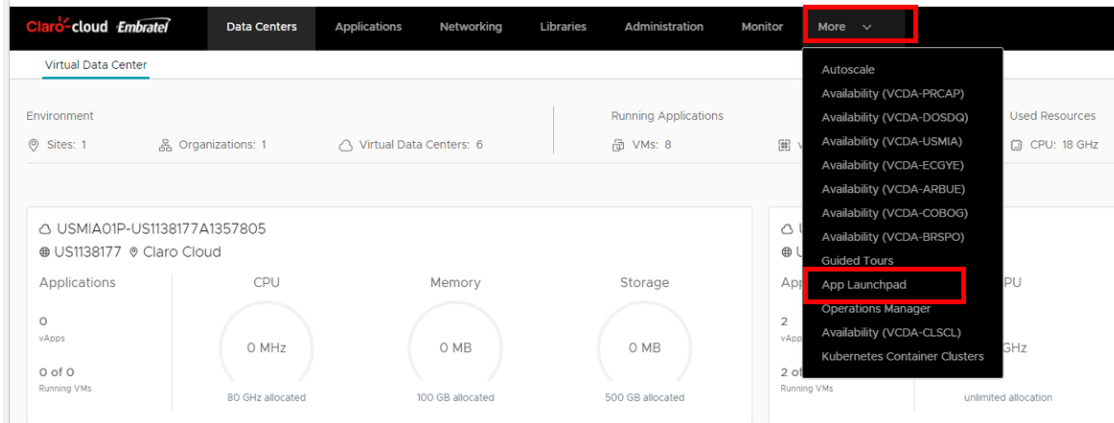


11. Application Catalog in Enterprise Claro Cloud

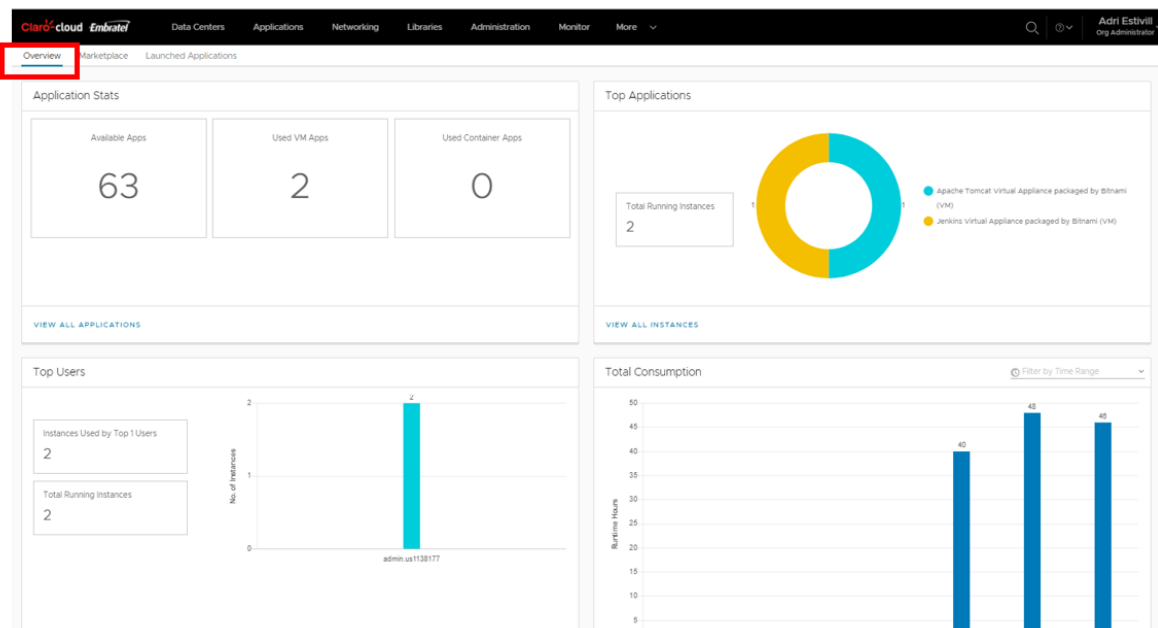
Enterprise Claro Cloud offers you a catalog of open source applications that you can use to deploy virtual machines directly in your Organization's Data Centers.

Process to enter the catalog

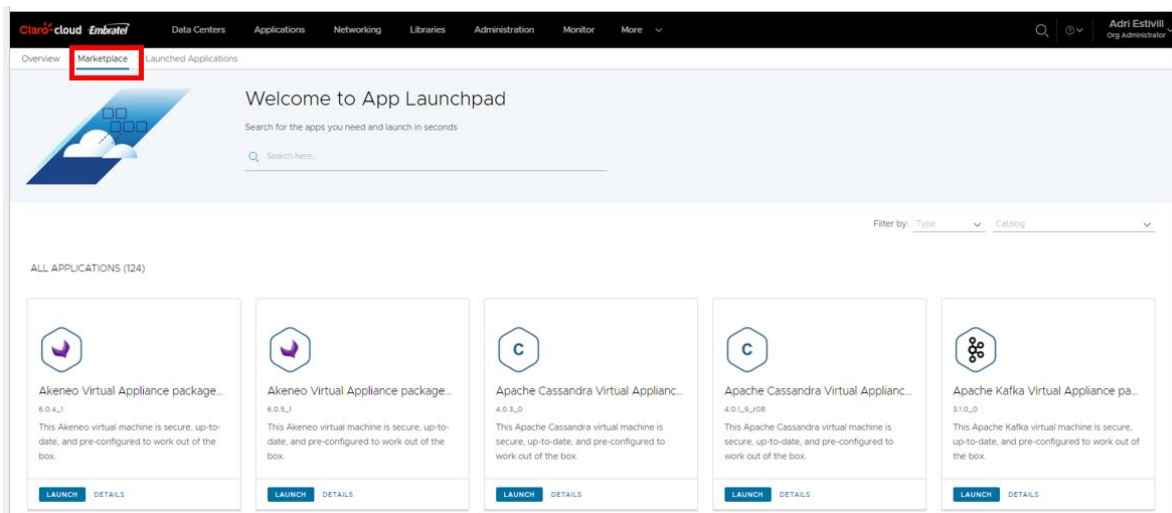
1. In the main menu select "More", in the submenu click on "App Launchpad".



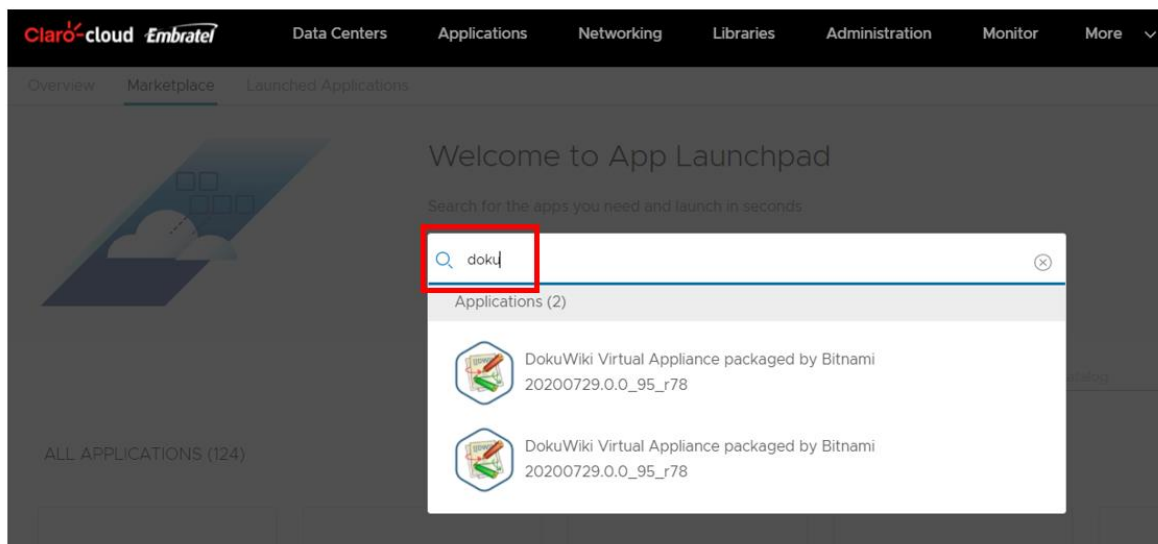
2. The following screen will be displayed, where you can view an overview of the applications that are deployed in the organization



3. Select the Marketplace option to deploy the application catalog
4. In case you have contracted infrastructure in more than one computing region, it is advisable to filter the catalog in the region you want to provision

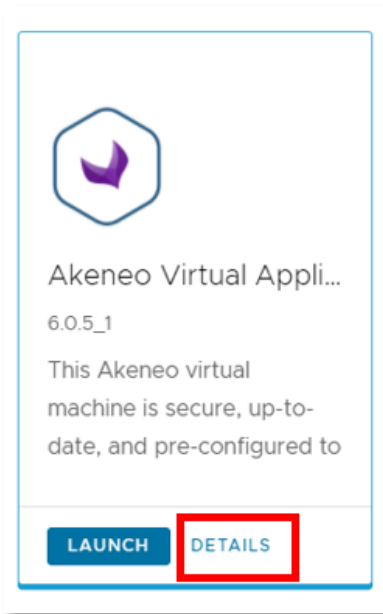


5. You can use the built-in search engine to find a particular application.

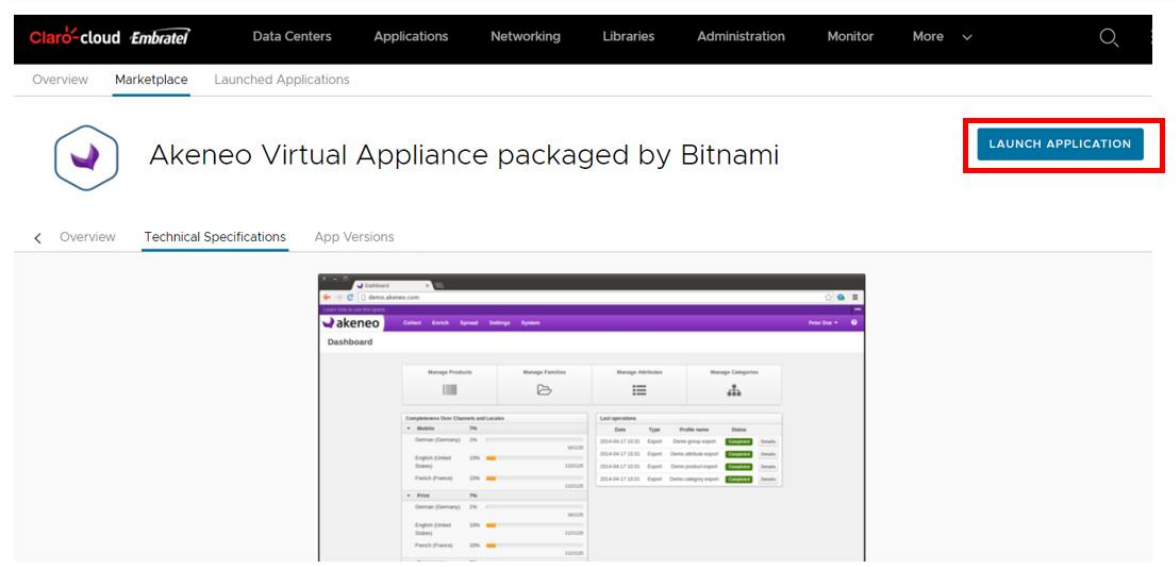


Creating an application

1. Find and select the application to deploy, click on "Details" then select it.



2. The following screen will be displayed to show you the overview of the application, versions, and technical specifications. To start the implementation click "Launch Application"



3. The following screen will be displayed, first you must enter the name to define the hostname of the virtual machine to be deployed. After clicking show details to display the rest of the parameters to configure.

Item	Description
Location	Select the Data Center where you want to deploy your application

Size	Define the size of the virtual machine where the application will be installed
IP address	Define the internal or external IP address to assign

Claro Cloud Embratel

Data Centers Applications Networking Libraries Administration Monitor More

Overview Marketplace Launched Applications

Launch Akeneo Virtual Appliance packaged by Bitnami 6.0.5_1

Akeneo Virtual Appliance packaged by Bitnami 6.0.5_1

Akeneo is a Product Information Management (PIM) application designed to simplify your product management processes by providing a central repository of all product data within the organization. Trademarks: This software listing is packaged by Bitnami. The respective trademarks mentioned in the offering are owned by the respective companies, and use of them does not imply any affiliation or endorsement. Why use Bitnami Apps? Bitnami certified images are always up-to-date, secure, and built to work right out of the box. Bitnami packages applications following industry standards and continuously monitors all components and libraries for vulnerabilities and application updates. When any security threat or update is identified, Bitnami automatically repackages the applications and pushes the latest versions to the cloud marketplaces.

Name of the Application

SHOW DETAILS >

LAUNCH APPLICATION

Claro Cloud Embratel

Data Centers Applications Networking Libraries Administration Monitor More

Overview Marketplace Launched Applications

HIDE DETAILS v

Location

Size

Claro Cloud-US1138177-ARBUE01P-US1138177P1369580 v

gp.large-01 ✓ 16 vCPU ✓ 32 GB vRAM ✓ 20 GB Storage	gp.large-02 ✓ 16 vCPU ✓ 64 GB vRAM ✓ 20 GB Storage	gp.medium-01 ✓ 4 vCPU ✓ 8 GB vRAM ✓ 20 GB Storage
gp.medium-02 ✓ 4 vCPU ✓ 16 GB vRAM ✓ 20 GB Storage	gp.medium-03 ✓ 8 vCPU ✓ 16 GB vRAM ✓ 20 GB Storage	gp.medium-04 ✓ 8 vCPU ✓ 32 GB vRAM ✓ 20 GB Storage
gp.small-01 ✓ 2 vCPU	gp.small-02 ✓ 2 vCPU	gp.xlarge-01 ✓ 32 vCPU

- Optionally, you can click Advanced Settings to define the following parameters. When finished, click "Start Application"

Item	Description
------	-------------

Network	Select an existing network from the previously chosen Data Center
Storage Profile	Type of storage, as the only option Enterprise Claro Cloud has SSD disks
Startup script	You can load a customization script into a virtual machine. The script runs before and after guest customization when you deploy a virtual machine based on an application template.
Tags	User-defined tags are useful when adding additional properties to your application.

Claro cloud Embratel

Data Centers Applications Networking Libraries Administration Monitor More

Overview Marketplace Launched Applications

- ✓ 32 vCPU
- ✓ 128 GB vRAM
- ✓ 20 GB Storage

IP Address Internal IP Address

HIDE ADVANCED SETTINGS

Network

Storage Profile SSDPremium

Startup Script (Optional) + ADD SCRIPT

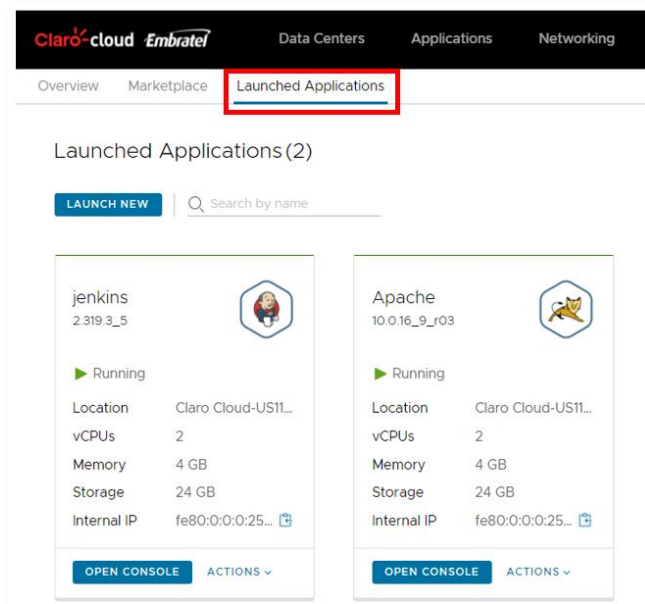
Tags (Optional)

Tag Key	Tag Value

+ ADD TAG

LAUNCH APPLICATION

- Upon completion of provisioning, you will be able to view your application from the "My Applications" option or directly in the selected Data Center



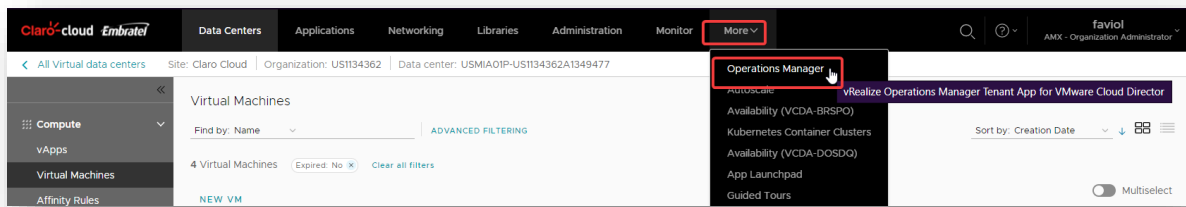
6. To access your application see the [First access to a virtual machine](#) section
7. To be able to reset your password the [Reset password section by default](#)

12. Monitoring

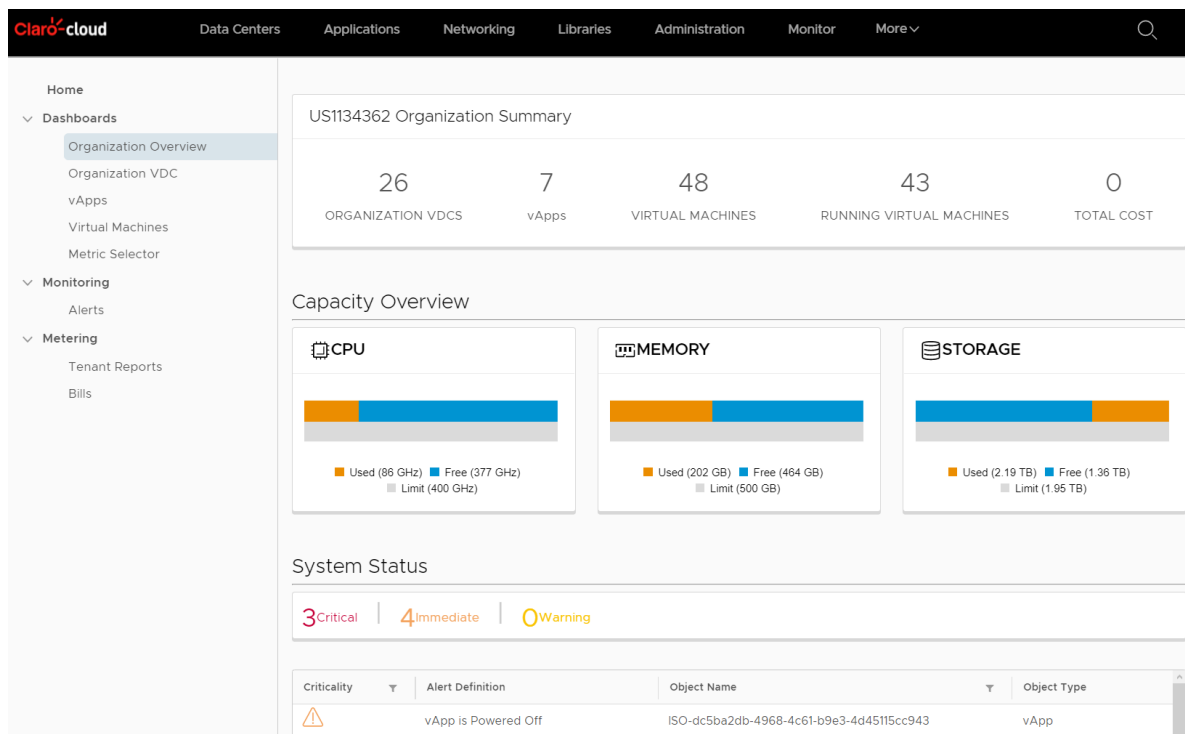
Enterprise Claro Cloud has a section where you can visualize metrics of consumption, health, and general platform behavior.

To enter this module follow the steps

1. From the main menu, select More, and then select the Operations Manager option.



2. Within the Operation Manager menu there will be a menu on the left which offers options where you can review a summary of your Organization, as well as the resources provisioned and consumed for CPU, Memory, and Storage.



- In the Organization VDC section you can see the list of your VDCs. For each of them you can see the type of VDC, the number of vApps that it contains, the number of virtual machines that it groups and how many of them are running. You'll also be able to validate the percentage of CPU used, along with memory and storage. Finally, the total cost for each VDC is observed.

Organization VDC	Allocation Model	Number of vApps	Number of VMs	Number of Running VMs	CPU Used (%)	Memory Used (%)	Storage Used (%)	Total Cost
CLSCL0IP-US1134362A1350492	Allocation Pool	0	0	0	0 %	0 %	0 %	-
USMA0IP-US1134362A1349922	Allocation Pool	0	0	0	0 %	0 %	0 %	-
ARBUE0IP-US1134362A1350495	Allocation Pool	6	6	3	12.50 %	16 %	75.68 %	-
USMA0IP-US1134362P1343172	Flex	0	0	0	-	-	-	-
DOSDQ0IP-US1134362P1354055	Flex	0	0	0	-	-	-	-
USMA0IP-US1134362A1350368	Allocation Pool	0	0	0	0 %	0 %	0 %	-
ARBUE0IP-US1134362P1354043	Flex	0	0	0	-	-	-	-
ECGYE0IP-US1134362P1354054	Flex	0	0	0	-	-	-	-
USMA0IP-US1134362P1347596	Flex	0	0	0	-	-	-	-
USMA0IP-US1134362P1347237	Flex	3	3	3	-	-	-	-

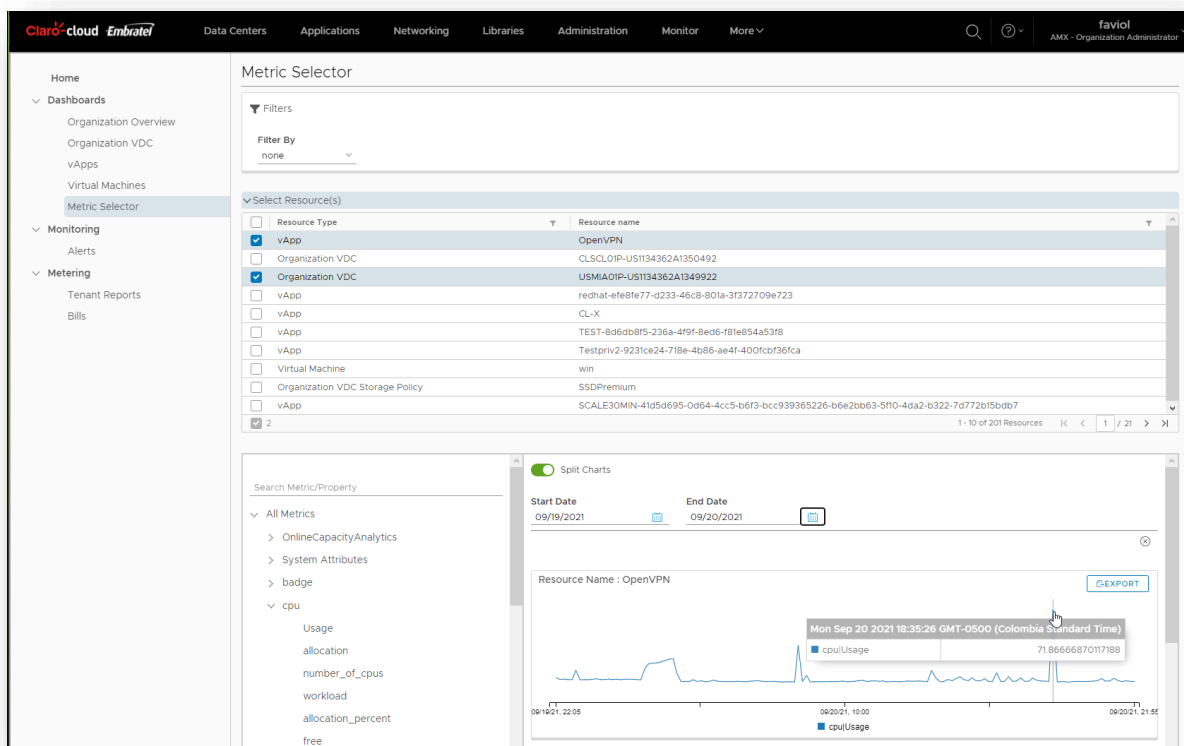
- The vApps section will show the list of vApps with the resources used (vCPU, Memory, and Storage), as well as the number of VMs that it has.

vApp	vCPU	Memory Allocated	Storage Allocated	Number of VMs	Snapshot Size	Owner	Total Cost
OpenVPN	2	2 GB	8 GB	1	0 GB	admin.us1134362	-
redhat-efe8fe77-d233-46c8-801a-3f327f09e723	1	2 GB	20 GB	1	0 GB	admin.us1134362	-
CL-X	8	12 GB	30 GB	3	0 GB	faviol	-
TEST-8d6db8f5-c23a-4d9f-8e06-f8e85453f8	4	8 GB	20 GB	1	0 GB	admin.us1134362	-
Testenv2-923f2e24-7f8e-4b85-ae4f-400fcbf36fca	1	2 GB	20 GB	1	0.07 GB	admin.us1134362	-
SCALE3OMIN-41f5d695-0d64-4cc5-b6f3-bcc939365226-b6620b63-5f70-4da2-b322-7d772b5bdb7	1	2 GB	20 GB	1	0 GB	system	-
Cassandratest	2	8 GB	20 GB	1	0 GB	system	-
SDWAN2-cc66f602-8e0a-4c70-8620-d40bbf3084ff	2	4 GB	8 GB	1	0 GB	admin.us1134362	-
WINARG-7b7499ef-58b0-4dde-b2b8-aa8f758b095d	2	2 GB	50 GB	1	0 GB	admin.us1134362	-

- In the Virtual Machines section it will show you the list of virtual machines along with their vCPU, Memory and Storage resources. You can also view the Snapshot size, if any, and the total cost.

Virtual Machine	vCPU	Memory Allocation	Storage Allocated	Snapshot Size	Total Cost
win	2	2 GB	50 GB	0 GB	-
node-z8fe	2	8 GB	10 GB	0 GB	-
reddcv2	1	2 GB	20 GB	0 GB	-
pruebapostfala2-958fd70a-6e60-4f86-ae97-0033c6ef3765	2	2 GB	50 GB	0 GB	-
TestUbuntu	2	8 GB	20 GB	0 GB	-
SCALE30MIN-41d5d695-0d64-4cc5-b6f3-bcc939365226	1	2 GB	20 GB	0 GB	-
node-z27t	4	8 GB	10 GB	0 GB	-
node-6wbh	2	4 GB	10 GB	0 GB	-
node-48st	2	8 GB	10 GB	0 GB	-
Testpriv2	1	2 GB	20 GB	0.07 GB	-

- In the Metric Selector section you can opt for different parameters that will help you create personalized dashboards of the different contracted services, to be able to visualize the use in periods of time.



- In the Alerts section it will show you a summary of important events to validate, where you can also observe the criticality and the services that could have a problem or incident.

Alerts Summary

8 TOTAL ALERTS 0 CRITICAL ALERTS 8 IMMEDIATE ALERTS 0 WARNING ALERTS

List of Alerts

Criticality	Alert Definition	Object Name	Object Type
⚠	vApp is Powered Off	Testpriv2-9231ce24-718e-4b86-ae4f-400fcbf36fca	vApp
⚠	vApp is Powered Off	ISO-dc5ba2db-4968-4c61-b9e3-4d45115cc943	vApp
⚠	vApp is Powered Off	testgrafana	vApp
⚠	vApp is Powered Off	DokuApp	vApp
⚠	vApp is Powered Off	test02-elf98840-10aa-45a7-985a-73e4fa17c095	vApp
⚠	vApp is Powered Off	AMXTEST	vApp
⚠	vApp is Powered Off	Cassandrastest	vApp
⚠	vApp is Powered Off	SDWAN-f52042c5-93e7-487a-bc5b-eb224b566b66	vApp

1 - 8 of 8 Alerts

8. In the Bills section, you can view detailed consumption reports by Data Center, which contain the details of the contracted services that will be included in your billing

Important: For Data Centers in Resource Pool scheme, computing resources (vCPU, RAM and Storage) will not be displayed, these will be detailed in your Claro Cloud invoice.

The reports will be generated according to your Claro Cloud billing cycle

My Bills

Select OVDC: ARBUE01P-US1138177P1369580 Select Range: Last One Month

[VIEW](#)

<input type="checkbox"/>	Title	Resource Name	Billing Date	Start Time	End Time
<input type="checkbox"/>	ARBUE01P-US1138177P1369580_02_2022	ARBUE01P-US1138177P1369580	Mar 1, 2022, 9:50 A M	Feb 1, 2022, 12:00 AM	Mar 1, 2022, 12:00 M

1 - 1 of 1 Items

13. APIs

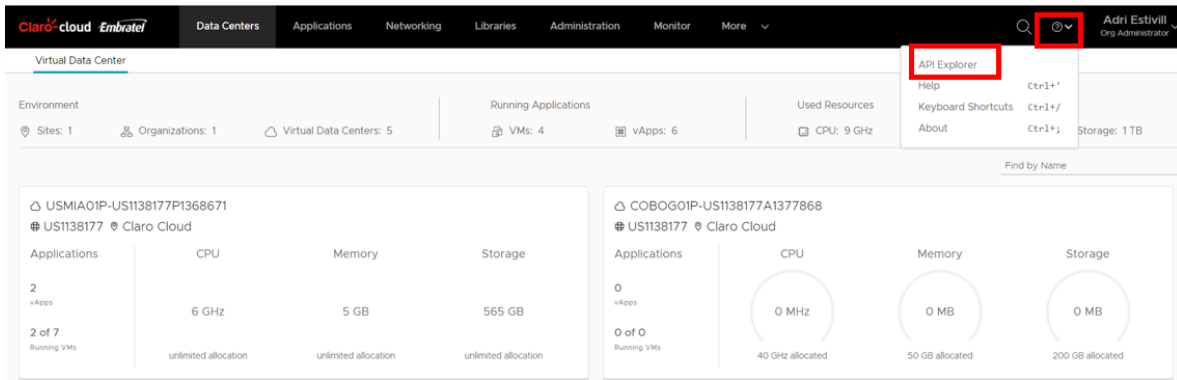
Enterprise Claro Cloud offers you the ability to manage your service through Restful APIs. For more information, go to <https://developer.vmware.com/apis/1196/vmware-cloud-director>

Below are the different methods to access this functionality.

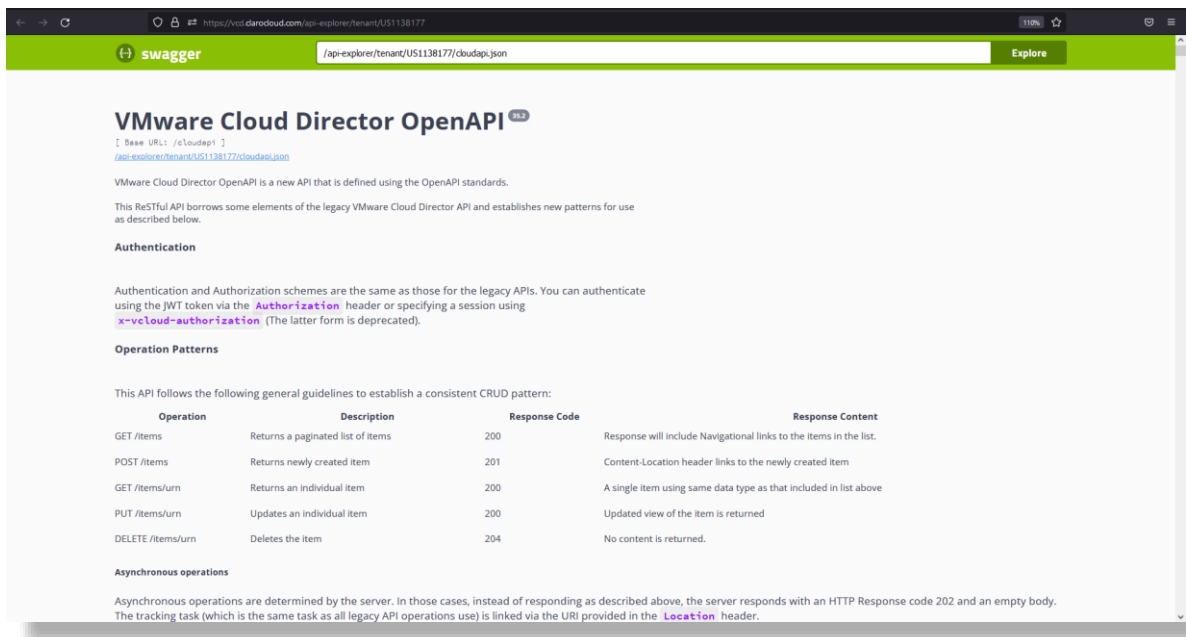
Direct access via control panel (Swagger)

Through its self-service panel you will be able to access an interface where you can use APIs without downloading additional software,

1. From the main menu, select the help icon (?) and then the "API Explorer" option.



2. The following web page will open, where you can run Restful API calls, without the need to install additional software



Note: No registration or login is required, the platform automatic links your organization and user

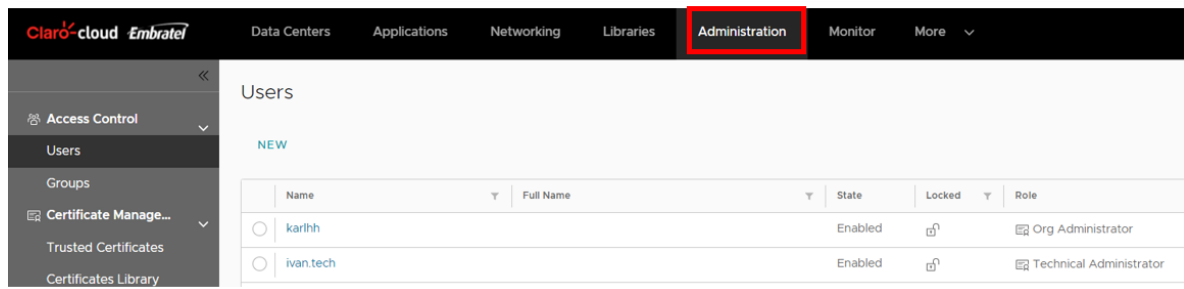
Administration through Terraform Provider

One of methods of administration and access to your service that Enterprise Claro Cloud makes available to you is Terraform Provider, which allows you to manage, implement and access your services through code.

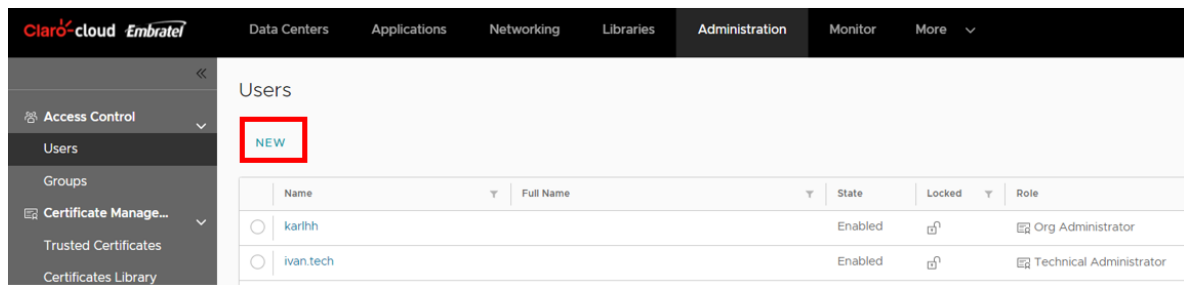
For more information, go to <https://registry.terraform.io/providers/vmware/vcd/latest/docs>

It is necessary to create an additional user in order to be able to enter your service through Terraform, perform the following steps.

1. From the main menu, select Administration



2. Click "New"



3. The next screen will open and enter the following information, when finished click "Save"

Create User

×

Credentials

User name *

Input is required

Password *

Confirm password *

Enable

☒

Configure user's quota

☒

Upon successful user's data save, redirects to user's quota section

Role

Available roles *

▼

Select a role

Contact info

Full name

Email address

DISCARD

SAVE

Item	Description
User name	Enter user name
Password	Define a password. It is recommended to include at least one capital letter a number and a special character
Enable	Keep this option on
Configure user's quota	Enables user resource limits
Available features	Select the user role to assign it is recommended to assign an Organization Administrator
Full name	Enter your full name
E-mail address	Please enter a valid email account
Phone Number	Enter a contact phone number
ID	(optional) Enter your ID number
Quota of all VMs	The maximum number of virtual machines in vApps that an organization member can store in an undeployed state.
Running VM quota	The maximum number of virtual machines that a member of this organization can deploy simultaneously.

14. Glossary

App Launchpad

It is a VMware Cloud Director service extension that service providers can use to create and publish application catalogs ready for deployment. Users of the leasing service can then deploy the applications with a single click.

App Launchpad supports the use of applications from the Bitnami App Catalog that is available on the VMware Marketplace.

Load Balancer / Load Balancer

It is one of the features included in Claro Cloud with the power of the new AVI Networks component, which allows load balancing or applications with different algorithms for applications that are running on several virtual machines by exposing a VIP (Virtual IP).

Distributed Firewall

The distributed firewall allows you to segment virtual datacenter entities in your organization, such as virtual machines, based on the attributes and names of the virtual machines. NSX software provides distributed firewall capability in the vCloud Director environment.

Kubernetes Cluster

This cluster is a complete distribution of the open source Kubernetes container orchestration platform compiled, signed, and supported by VMware. This is a cluster instance integrated with vCloud Director that is CSE (Container Service Extension) enabled.

Private and public IP range

The main differences between public IP and private IP is that the former is accessible from the Internet and the latter is not, and that the former is assigned to the internet endpoint and access (the router) and the latter to the devices connected to that endpoint.

T1 Edge Gateway

It is an NSX service which in turn supports network services such as Routing, VPN (IPSec, L2), Load Balancing, DHCP.

Coat

It is a logical organization within vCloud Director that allows you to operate virtual infrastructure with its different compute, network and storage components.

vCloud Director

Cloud service delivery platform developed by VMware, allows to operate infrastructure efficiently and elastically

Virtual Firewall

It is a firewall integrated into a fully virtualized environment, allows you to perform traditional and advanced filtering functions when integrated with other components

VM

Initials corresponding to virtual machines for its acronym in English

VMware Cloud Availability

VMware product used for replication and disaster recovery

VPN IPSEC

Connection between two sites that you make using the concept of tunnel or secure network on another network that is not, for example, a secure connection on the Internet, the basis of its operation corresponds to two systems at the ends that are responsible for encrypting the message in the middle and encapsulating the useful information. This is achieved with different algorithms, protocols and in some cases, with digital certificates. For the VMware platform this system is managed by the Edge Gateway

VPN L2

An L2 or Layer 2 VPN is a type of VPN where data links are virtualized to simulate a local network over geographically remote sites where data service providers are not involved in IP routing and control of this depends on the client completely.

VXLAN

It is one of the network encapsulation protocols that allows to solve the limitations of traditional VLANs, among which are the number of networks and the reuse of addressing in environments where thousands of machines are used typically in virtualized environments. The basic operation corresponds to an increase in information from the TCP/IP packet header which carries additional information that is processed in the VTEPs which are responsible for encapsulating and de-encapsulating the useful information. MTU greater than 1600 must be enabled to support VXLAN protocol