



TDC
ONLINE



Inovação com dados em nuvem

TRILHA



Deploy de website na Oracle
Cloud Infrastructure

Jean Rodrigues

29.10.2020

Índice

<i>IAM Criação do grupo, usuários, compartimentos e políticas.....</i>	3
Criação do grupo Webdesigners	3
Criação da usuário Julia, Web Designer.....	4
Criação do Usuário João, Especialista em Cloud	8
Criando Compartimentos	11
Criação da Policy para o grupo Webdesigners.....	13
<i>Acessando via SSH a VM criada.....</i>	29
<i>Preparação da VM</i>	30
<i>Criação do Bucket</i>	33
<i>Fazendo upload do arquivo com o site para o bucket</i>	34

IAM | Criação do grupo, usuários, compartimentos e políticas

Criação do grupo Webdesigners

Ao acessar a console da OCI, clique em **Menu > Identity > Groups**.

The screenshot shows the Oracle Cloud Identity Groups page. On the left, there's a sidebar with options like Users, Groups (which is selected), Dynamic Groups, Network Sources, Policies, Compartments, Federation, and Authentication Settings. The main area is titled 'Groups' and contains a message about creating or managing federated groups instead. Below this, a table lists one group: 'Administrators' (Name), 'Administrators' (Description), and 'Sat, Sep 26, 2020, 20:07:45 UTC' (Created). At the bottom, it says 'Displaying 1 Group' and 'Page 1'. There are also 'Create Group' and 'Delete' buttons.

Clique em **Create Group**. Abaixo, insira o nome do grupo, sua descrição e clique em **Create**.

The screenshot shows the 'Create Group' dialog box. It has fields for 'NAME' (containing 'Webdesigners') and 'DESCRIPTION' (containing 'Grupo dos webdesigners'). A note at the top says: 'This page creates a local group only. To create and manage federated groups, go to the [Federation page](#) to find the appropriate Identity Provider Details page.' There's also a 'Show Advanced Options' link. At the bottom, there are 'Create' and 'Cancel' buttons, and a checkbox for 'CREATE ANOTHER GROUP'.

Criação da usuário Julia, Web Designer

Ao acessar a console da OCI, clique em **Menu > Identity > Users**.

The screenshot shows the Oracle Cloud Identity interface. The left sidebar has a tree view with 'Identity' selected. The main area is titled 'Users' and contains a table with two rows. The columns are 'Name', 'Status', 'Email', 'Description', 'Federated', and 'Created'. The first row is for a federated user ('oracleidentitycloudservice/josue.lima1810@gmail.com') and the second is for a local user ('Josué de Castro Lima'). Both are active.

Name	Status	Email	Description	Federated	Created
oracleidentitycloudservice/josue.lima1810@gmail.com	Active	-	josue.lima1810@gmail.com	Yes	Sat, Sep 26, 2020, 20:14:53 UTC
Josué de Castro Lima	Active	josue.lima1810@gmail.com	Josué de Castro Lima	No	Sat, Sep 26, 2020, 20:07:45 UTC

Clique no botão **Create User**, para iniciar a criação da usuária Julia.

This screenshot shows the same Oracle Cloud Identity interface as the previous one, but with the 'Create User' button highlighted in blue. The table below it is empty, indicating no users have been created yet.

Name	Status	Email	Description	Federated	Created
	Active	-		Yes	Sat, Sep 26, 2020, 20:14:53 UTC
	Active	-		No	Sat, Sep 26, 2020, 20:07:45 UTC

Selecione IAM User e clique em Next.

Create User Help

Select User Type

Oracle Identity Cloud Services (IDCS - Recommended)
These users authenticate through single sign-on and can be granted access to all services included in your account. Create IDCS users for day-to-day interaction with services.

IAM User
These users can access Oracle Cloud Infrastructure services, but not all Cloud Platform services. Create IAM users for less typical user scenarios, such as emergency administrator access. ✓

Learn more about federated user management [Learn more](#)

Next Cancel

Insira o nome, a descrição e clique em Create.

Create IAM User Help

This page creates a local user only. To create and manage federated users, go to the [Federation page](#) to find the appropriate Identity Provider Details page.

NAME
 No spaces. Only letters, numerals, hyphens, periods, underscores, +, and @.

DESCRIPTION

EMAIL OPTIONAL CONFIRM EMAIL

Show Advanced Options

Previous Create Cancel

Após concluir a criação da usuária Julia, clique em **Add User to Group**.

The screenshot shows the 'User Information' tab for a user named 'Julia'. Key details include:

- User Information:** OCID: ...lskwq, Created: Wed, Oct 28, 2020, 14:50:46 UTC, Multi-factor authentication: Disabled, Email: -.
- Capabilities:** Local password: Yes, API keys: Yes, Auth tokens: Yes. SMTP credentials: Yes, Customer secret keys: Yes.
- Resources:** Groups (selected), API Keys, Auth Tokens, Customer Secret Keys, SMTP Credentials.
- Groups:** A table with columns Group Name, Status, and Description. It shows one entry: Webdesigners (Status: Active, Description: Grupo dos webdesigners). Buttons: Add User to Group, Remove.

Selecione o grupo **Webdesigners** e clique em **Add**.

The dialog box shows the 'GROUPS' section with 'Webdesigners' selected. Buttons: Add (highlighted), Cancel.

Usuária Julia adicionada no grupo Webdesigners.

The screenshot shows the 'User Information' tab for 'Julia'. The 'Groups' section now includes 'Webdesigners' under 'Status' (Active) and 'Description' (Grupo dos webdesigners).

Clique em **Create/Reset Password**, para preparar uma senha de acesso à console da OCI para Julia.

Identity > Users > User Details

Julia
Web Designer
ACTIVE

User Information Tags

OCID: Iskwkq Show Copy
Created: Wed, Oct 28, 2020, 14:50:46 UTC
Multi-factor authentication: Disabled
Email: -

Capabilities

Local password: Yes SMTP credentials: Yes
API keys: Yes Customer secret keys: Yes
Auth tokens: Yes

Resources Groups

Groups

Add User to Group	Remove	
<input type="checkbox"/> Group Name	▲ Status	Description
<input type="checkbox"/> Webdesigners	● Active	Grupo dos webdesigners

Clique em **Create/Reset Password**.

Create/Reset Password Help Cancel

This will create a new one-time password for the user.

Create/Reset Password **Cancel**

Senha disponível. Clique em **Copy** e cole em um local seguro.

Create/Reset Password Help Close

New Password

Copy this password for your records. It will not be shown again.

***** [Show](#) [Copied](#)

Close

Criação do Usuário João, Especialista em Cloud

Ao acessar a console da OCI, clique em **Menu > Identity > Users**, em seguida, **Create User**.

Users

Create or manage federated users instead?
This tenancy has a federation with one or more identity providers (IdP), which means users typically sign in as federated users. This page creates local users, manages their local capabilities, and lets them sign in to Oracle Cloud Infrastructure if the federated IdP is unavailable. To create and manage federated users, go to the [Federation page](#) to find the appropriate IdP Details page.

[Create User](#) [Delete](#)

Selecione **IAM User** e clique em **Next**.

Create User [Help](#)

Select User Type

Oracle Identity Cloud Services (IDCS - Recommended)
These users authenticate through single sign-on and can be granted access to all services included in your account. Create IDCS users for day-to-day interaction with services.

IAM User
These users can access Oracle Cloud Infrastructure services, but not all Cloud Platform services. Create IAM users for less typical user scenarios, such as emergency administrator access.

Learn more about federated user management [Learn more](#)

[Next](#) [Cancel](#)

Insira o nome, a descrição e clique em **Create**.

Create IAM User [Help](#)

This page creates a local user only. To create and manage federated users, go to the [Federation page](#) to find the appropriate Identity Provider Details page.

NAME
João
No spaces. Only letters, numerals, hyphens, periods, underscores, +, and @.

DESCRIPTION
Especialista em Cloud

EMAIL OPTIONAL **CONFIRM EMAIL**

Show Advanced Options

[Previous](#) [Create](#) [Cancel](#)

Após concluir a criação do usuário Joao, clique em **Add User to Group**.

Identity » Users » User Details

Joao

Especialista em Cloud

[Edit User](#) [Create/Reset Password](#) [Enable Multi-Factor Authentication](#) [Edit User Capabilities](#) [More Actions ▾](#)

User Information Tags

OCID: ...moguta [Show](#) [Copy](#)

Created: Wed, Oct 28, 2020, 14:55:45 UTC

Multi-factor authentication: Disabled

Email: -

Capabilities

Local password: Yes	SMTP credentials: Yes
API keys: Yes	Customer secret keys: Yes
Auth tokens: Yes	

Resources Groups

[Add User to Group](#) Remove

<input type="checkbox"/>	Group Name	Status	Description
No items found.			

Selecione o grupo Administrators e clique em **Add**.

Add User to Group [Help](#) [Cancel](#)

GROUPS

Select a Group

Administrators

Webdesigners

Add User to Group [Help](#) [Cancel](#)

GROUPS

Administrators

Add **Cancel**

Usuário João adicionado ao grupo Administrators. Agora, clique em **Create/Reset Password**, para preparar uma senha de acesso à console da OCI para o João.

Identity > Users > User Details

Joao

Especialista em Cloud

[Edit User](#) [Create/Reset Password](#) [Enable Multi-Factor Authentication](#) [Edit User Capabilities](#) [More Actions](#)

User Information Tags

OCID: ...moguta [Show](#) [Copy](#)

Created: Wed, Oct 28, 2020, 14:55:45 UTC

Multi-factor authentication: Disabled

Email: -

Capabilities

Local password: Yes	SMTP credentials: Yes
API keys: Yes	Customer secret keys: Yes
Auth tokens: Yes	

Resources Groups

[Groups](#) [API Keys](#) [Auth Tokens](#) [Customer Secret Keys](#)

Add User to Group Remove

<input type="checkbox"/>	Group Name	Status	Description
<input type="checkbox"/>	Administrators	● Active	Administrators

Clique em **Create/Reset Password**.

Create/Reset Password [Help](#) [Cancel](#)

This will create a new one-time password for the user.

[Create/Reset Password](#) [Cancel](#)

Senha disponível. Clique em **Copy** e cole em um local seguro.

Create/Reset Password [Help](#) [Close](#)

New Password

Copy this password for your records. It will not be shown again.

***** [Show](#) [Copy](#)

[Close](#)

Criando Compartimentos

Ao navegar ao **Menu > Identity > Compartments**, clique em **Create Compartment**.

The screenshot shows the Oracle Cloud Identity interface under the 'Compartments' section. On the left, there's a sidebar with links like 'Users', 'Groups', 'Dynamic Groups', 'Network Sources', 'Policies', 'Compartments' (which is selected and highlighted in blue), 'Federation', and 'Authentication Settings'. Below that are 'Filters' and 'Tag Filters' sections. The main area is titled 'Compartments' and contains a table with columns: Name, Status, OCID, Authorized, Security Zone, Subcompartments, and Created. Two items are listed:

Name	Status	OCID	Authorized	Security Zone	Subcompartments	Created
josuelima1810 (root)	Active	vh54na	Yes	Not Enabled	1	Sat, Sep 26, 2020, 20:21:20 UTC
ManagedCompartmentForPaaS	Active	sg2xza	Yes	Not Enabled	0	Sat, Sep 26, 2020, 20:21:20 UTC

At the bottom right of the table, it says 'Showing 2 items < Page 1 >'. There are also three vertical dots on the far right of the table.

Insira o nome do compartimento, sua descrição e clique em **Create Compartment**.

The screenshot shows the 'Create Compartment' dialog box. At the top right are 'Help' and 'Cancel' buttons. The form has three main sections: 'NAME' (with input field 'Network'), 'DESCRIPTION' (with input field 'Recursos de Network'), and 'PARENT COMPARTMENT' (with dropdown menu showing 'josuelima1810 (root)'). Below these is a note about tagging: 'Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.' A link 'Learn more about tagging' is provided. At the bottom, there's a 'TAG NAMESPACE' dropdown ('None (add a free-form tag)'), 'TAG KEY' and 'VALUE' input fields, a 'X' button to remove a tag, and a '+ Additional Tag' button. At the very bottom is a large blue 'Create Compartment' button.

Compartimento Network criado. Clique em **Create Compartment** para criar o compartimento Compute.

Identity Compartments

[Create Compartment](#)

Name	Status	OCID	Authorized	Security Zone ⓘ	Subcompartments	Created
josuelima1810 (root)	Active	...vh54pa	Yes	Not Enabled	2	-
ManagedCompartmentForPaaS	Active	...sg2xza	Yes	Not Enabled	0	Sat, Sep 26, 2020, 20:21:20 UTC
Network	Active	...5ymiaa	Yes	Not Enabled	0	Wed, Oct 28, 2020, 15:23:27 UTC

Showing 3 items < Page 1 >

Filters

STATE Active | Deleting

Tag Filters [add](#) | [clear](#)
no tag filters applied

Insira a informação de nome do compartimento, sua descrição e clique em **Create Compartment**.

Create Compartment [Help](#) [Cancel](#)

NAME

DESCRIPTION

PARENT COMPARTMENT

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.
[Learn more about tagging](#)

TAG NAMESPACE	TAG KEY	VALUE
None (add a free-form tag)		

[+ Additional Tag](#)

[Create Compartment](#)

Compartimentos Network e Compute criado.

The screenshot shows the Oracle Cloud Infrastructure Identity & Security Compartments page. On the left, there's a sidebar with navigation links like Identity, Users, Groups, Dynamic Groups, Network Sources, Policies, Compartments (which is selected and highlighted in blue), Federation, and Authentication Settings. Below the sidebar are filters for State (Active | Deleting) and Tag Filters (no tag filters applied). The main area is titled "Compartments" and contains a table with the following data:

Name	Status	OCID	Authorized	Security Zone ⓘ	Subcompartments	Created
Compute	Active	...vaaqmg	Yes	Not Enabled	0	Wed, Oct 28, 2020, 15:24:19 UTC
josuemaria1810 (root)	Active	...vh54pa	Yes	Not Enabled	3	-
ManagedCompartmentForPaaS	Active	...so2xza	Yes	Not Enabled	0	Sat, Sep 26, 2020, 20:21:20 UTC
Network	Active	...5ymiaa	Yes	Not Enabled	0	Wed, Oct 28, 2020, 15:23:27 UTC

At the bottom right of the table, it says "Showing 4 Items < Page 1 >".

Criação da Policy para o grupo Webdesigners

Acesse o **Menu > Identity > Policies**. Clique em **Create Policy**. Insira a descrição. Mantenha selecionado o compartimento **Compute**. Em Policy Builder > Policy Options, Policy Use Cases, selecione **Storage Management** e em Common Policy Templates, selecione **Let Users write objects to Object Storage buckets**. Em **Groups**, selecione Webdesigners. Em **Location**, selecione Compute e clique em **Create**.

The screenshot shows the "Create Policy" wizard. The first step is "Policy Options". It has a "DESCRIPTION" field with the value "Acesso ao Object Storage". The "COMPARTMENT" dropdown is set to "Compute". In the "Policy Options" section, under "POLICY USE CASES", "Storage Management" is selected. Under "COMMON POLICY TEMPLATES", "Let users write objects to Object Storage buckets" is selected. The "GROUPS" dropdown contains "Webdesigners". The "LOCATION" dropdown is set to "Compute". At the bottom, there are policy statements: "Allow Webdesigners to read buckets in compartment Compute" and "Allow Webdesigners to manage objects in compartment Compute where any {request.permission='OBJECT_CREATE', request.permission='OBJECT_INSPECT'}". At the very bottom, there are radio buttons for "POLICY VERSIONING": "KEEP POLICY CURRENT" (selected) and "USE VERSION DATE". There are also "Create", "Cancel", and "CREATE ANOTHER POLICY" buttons.

Policy-WebDesigner criada.

The screenshot shows the Oracle Cloud Identity > Policies > Policy Detail page. A large green circular icon with a white letter 'P' and the word 'ACTIVE' below it is on the left. The main content area has tabs for 'Policy Information' and 'Tags'. Under 'Policy Information', details are listed: OCID: hzw66yda, Version Date: Keep version current, Compartment: josuelima1810 (root)/Compute, Description: Acesso ao Object Storage, and Created: Wed, Oct 28, 2020, 15:48:09 UTC. Below this is a 'Statements' section with a 'Edit Policy Statements' button. Two statements are listed: 'Allow group Webdesigners to read buckets in compartment Compute' and 'Allow group Webdesigners to manage objects in compartment Compute where any (request.permission='OBJECT_CREATE', request.permission='OBJECT_INSPECT')'. A note at the bottom says 'Showing 2 items'.

Faça o logout e faça o login na console da OCI com o usuário João, Especialista em Cloud, que será o responsável pela preparação do ambiente.

Após concluir o acesso com o usuário João, acesse **Menu > Networking > Virtual Cloud Networks**.

The screenshot shows the Oracle Cloud homepage with a dark sidebar on the left containing navigation links like Core Infrastructure, Compute, Block Storage, Object Storage, File Storage, Networking, Oracle Database, Overview, Autonomous Data Warehouse, Autonomous JSON Database, Autonomous Transaction Processing, Bare Metal, VM, and Exadata, Database, MySQL, NoSQL Database, and Database Related Services. The main content area features a 'Virtual Cloud Networks' section with options like 'Create an ATP database', 'Create an ADW database', 'Create a stack', and 'View all my resources'. To the right, there's a 'Account Center' with 'User Management' and 'Upgrade' buttons, a 'What's New' section with news items about Performance Hub ADDM Tab, Exadata Cloud Service, and Exadata Cloud Service infrastructure upgrade, and a 'Get Help' section with developer tools and documentation links.

Em List Scope, Compartiment, selecione o compartimento Network.

Networking

Virtual Cloud Networks

Virtual Cloud Networks are virtual, private networks that you set up in Oracle data centers. It closely resembles a traditional network, with firewall rules and specific types of communication gateways that you can choose to use.

Pick a Compartment

Oracle Cloud Infrastructure uses compartments to organize your resources.

View and manage your resources: pick a compartment and resource type using the filter on the left

[Learn more about compartments](#)

Dynamic Routing Gateways
Customer-Premises Equipment
VPN Connections
Load Balancers
FastConnect
IP Management
DNS Zone Management
TSIG Keys
Traffic Management Steering Policies
HTTP Redirects

List Scope

CCompartment

Search compartments ▾
josuelima1810 (root)
Compute
ManagedCompartmentForPaaS
Network
Any state

Clique em Create VCN.

Networking

Virtual Cloud Networks in Network Compartment

Virtual Cloud Networks are virtual, private networks that you set up in Oracle data centers. It closely resembles a traditional network, with firewall rules and specific types of communication gateways that you can choose to use.

Create VCN Start VCN Wizard

Name	State	CIDR Block	Default Route Table	DNS Domain Name	Created
No items found.					

Showing 0 Items < 1 of 1 >

List Scope

CCompartment

Network
josuelima1810 (root)/Network

Insira o nome desejado, selecione o compartimento **Network**. Em CIDR Block, digite 10.0.0.0/16 e clique em **Create VCN**.

Create a Virtual Cloud Network

[Help](#)

NAME
VCNTCB

CREATE IN COMPARTMENT
Network

CIDR BLOCK
10.0.0.0/16
Example: 10.0.0.0/16
If you plan to peer this VCN with another VCN, the VCNs must not have overlapping CIDRs. [Learn more](#).

DNS RESOLUTION
 USE DNS HOSTNAMES IN THIS VCN
Required for instance hostname assignment if you plan to use VCN DNS or a third-party DNS. This choice cannot be changed after the VCN is created. [Learn more](#).

DNS LABEL
VCNTCB
Only letters and numbers, starting with a letter. 15 characters max.

DNS DOMAIN NAME READ-ONLY
VCNTCB.oraclevcn.com

[Show Advanced Options](#)

[Create VCN](#) [Cancel](#)

Em **Subnets**, clique em **Create Subnet**.

VCNTCB

Move Resource Add Tags [Terminate](#)

VCN Information Tags

Compartment: Network
Created: Wed, Oct 28, 2020, 15:54:56 UTC
CIDR Block: 10.0.0.0/16

OCID: ...sanx2q [Show](#) [Copy](#)
Default Route Table: [Default Route Table for VCNTCB](#)
DNS Domain Name: vcntcb.oraclevcn.com

Resources

Subnets (0)

Route Tables (1)
Internet Gateways (0)
Dynamic Routing Gateways (0)
Network Security Groups (0)
Security Lists (1)
DHCP Options (1)
Local Peering Gateways (0)
NAT Gateways (0)
Service Gateways (0)
VLANs (-)

Subnets in Network Compartment

[Create Subnet](#)

Name	State	CIDR Block	Subnet Access	Created
No items found.				

Showing 0 items < 1 of 1 >

Durante a criação da subnet, insira o nome desejado, selecione o compartimento **Network**. Em CIDR Block, digite 10.0.30.0/24. Em **Route table**, selecione a **Default Route Table for VCNTCB**. Mantenha **Public Subnet** selecionado.

Create Subnet

NAME
subrede-publica-tcb

CREATE IN COMPARTMENT
Network
josuelima1810 (root)/Network

SUBNET TYPE

Regional (Recommended)
Instances in the subnet can be created in any availability domain in the region. Useful for high availability.

Availability Domain-specific
Instances in the subnet can only be created in one availability domain in the region.

CIDR BLOCK
10.0.30.0/24
Specified IP addresses: 10.0.30.0-10.0.30.255 (256 IP addresses)

ROUTE TABLE COMPARTMENT IN NETWORK [\(CHANGE COMPARTMENT\)](#)
Default Route Table for VCNTCB

SUBNET ACCESS

Private Subnet
Prohibit public IP addresses for Instances in this Subnet

Public Subnet
Allow public IP addresses for Instances in this Subnet

DNS RESOLUTION
 USE DNS HOSTNAMES IN THIS SUBNET [\(i\)](#)
Allows assignment of DNS hostname when launching an Instance

Em DHCP options, selecione Default DHCP Options for VCNTCB. Em Security Lists, selecione Default Security List for VCNTCB. Feito esses ajustes, clique em Create Subnet.

DNS LABEL
subrepublicat
Only letters and numbers, starting with a letter. 15 characters max.

DNS DOMAIN NAME READ-ONLY
<dns-label>.vcntcb.oraclevcn.com

DHCP OPTIONS COMPARTMENT IN NETWORK [\(CHANGE COMPARTMENT\)](#)
Default DHCP Options for VCNTCB

Security Lists

You can associate up to 5 network security lists with the subnet.
SECURITY LIST COMPARTMENT IN NETWORK [\(CHANGE COMPARTMENT\)](#)
Default Security List for VCNTCB X

+ Another Security List

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.
[Learn more about tagging](#)

TAG NAMESPACE
None (add a free-form tag) X

TAG KEY VALUE

+ Additional Tag

Create Subnet [Cancel](#)

Com a Virtual Cloud Network criada, em **Resources**, clique em **Internet Gateways**.

VCNTCB

Move Resource Add Tags **Terminate**

VCN Information Tags

Compartment: Network
Created: Wed, Oct 28, 2020, 15:54:56 UTC
CIDR Block: 10.0.0.0/16

OCID: ...sanx2q Show Copy
Default Route Table: Default Route Table for VCNTCB
DNS Domain Name: vcntcb.oraclevcn.com

Resources

Subnets (1)

Route Tables (1)

Internet Gateways (0)

Dynamic Routing Gateways (0)

Network Security Groups (0)

Security Lists (1)

DHCP Options (1)

Local Peering Gateways (0)

NAT Gateways (0)

Service Gateways (0)

VLANs (-)

Subnets *in* Network Compartment

Create Subnet

Name	State	CIDR Block	Subnet Access	Created
subrede-publica-tcb	Available	10.0.30.0/24	Public (Regional)	Wed, Oct 28, 2020, 15:59:15 UTC

Showing 1 Item < 1 of 1 >

Clique em **Create Internet Gateway**.

VCNTCB

Move Resource Add Tags **Terminate**

VCN Information Tags

Compartment: Network
Created: Wed, Oct 28, 2020, 15:54:56 UTC
CIDR Block: 10.0.0.0/16

OCID: ...sanx2q Show Copy
Default Route Table: Default Route Table for VCNTCB
DNS Domain Name: vcntcb.oraclevcn.com

Resources

Subnets (1)

Route Tables (1)

Internet Gateways (0)

Dynamic Routing Gateways (0)

Network Security Groups (0)

Security Lists (1)

DHCP Options (1)

Local Peering Gateways (0)

NAT Gateways (0)

Service Gateways (0)

VLANs (-)

Internet Gateways *in* Network Compartment

Create Internet Gateway

Name	State	Created
		No items found.

Showing 0 Items < 1 of 1 >

Insira a informação de nome, selecione o compartimento Network e clique em **Create Internet Gateway**.

Create Internet Gateway [Help](#) [Cancel](#)

NAME
IGTCB

CREATE IN COMPARTMENT
Network ▼
josuelima1810 (root)/Network

Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.
[Learn more about tagging](#)

TAG NAMESPACE	TAG KEY	VALUE
None (add a free-form tag) ▼		

[+ Additional Tag](#) X

Create Internet Gateway Cancel

Com o Internet Gateway criado, em **Resources**, clique em **Route Tables**.

VCNTCB

Move Resource Add Tags Terminate

VCN Information Tags

Compartment: Network
Created: Wed, Oct 28, 2020, 15:54:56 UTC
CIDR Block: 10.0.0.0/16

OCID: ...samx2q Show Copy
Default Route Table: Default Route Table for VCNTCB
DNS Domain Name: vcntcb.oradevcn.com

AVAILABLE

Resources

Subnets (1)
Route Tables (1)
Internet Gateways (1)
Dynamic Routing Gateways (0)
Network Security Groups (0)
Security Lists (1)
DHCP Options (1)
Local Peering Gateways (0)
NAT Gateways (0)
Service Gateways (0)
VLANS (-)

Internet Gateways in Network Compartment

Name	State	Created
IGTCB	Available	Wed, Oct 28, 2020, 15:04:24 UTC

Showing 1 Item < 1 of 1 >

Clique em Default Route Table for VCNTCB.

The screenshot shows the VCN details page for 'VCNTCB'. At the top, there's a green hexagonal icon with 'VCN' in white. Below it, the status is 'AVAILABLE'. There are three buttons: 'Move Resource', 'Add Tags', and a red 'Terminate' button. A 'VCN Information' tab is selected, showing the compartment is 'Network', created on 'Wed, Oct 28, 2020, 15:54:56 UTC', and the CIDR Block is '10.0.0.0/16'. Other tabs include 'Tags', 'OCID: ...sanx2q', 'Default Route Table: Default Route Table for VCNTCB', and 'DNS Domain Name: vcntcb.oraclevcloud.com'. On the left, a sidebar lists resources: Subnets (1), Route Tables (1) (selected), Internet Gateways (1), Dynamic Routing Gateways (0), Network Security Groups (0), Security Lists (1), DHCP Options (1), Local Peering Gateways (0), NAT Gateways (0), Service Gateways (0), and VLANs (-). The main content area shows 'Route Tables in Network Compartment' with a table header 'Create Route Table'. One row is listed: 'Default Route Table for VCNTCB' is available, has 0 rules, and was created on 'Wed, Oct 28, 2020, 15:54:56 UTC'. A note says 'Showing 1 item < 1 of 1 >'.

Em Route Rules, clique em Add Route Rules.

The screenshot shows the Route Table Details page for 'Default Route Table for VCNTCB'. At the top, there's a green hexagonal icon with 'RT' in white. Below it, the status is 'AVAILABLE'. There are three buttons: 'Move Resource', 'Add Tags', and a greyed-out 'Terminate' button. A 'Route Table Information' tab is selected, showing the OCID is '...qq7j6q', created on 'Wed, Oct 28, 2020, 15:54:56 UTC', and the compartment is 'Network'. Other tabs include 'Tags', 'OCID: ...qq7j6q', 'Created: Wed, Oct 28, 2020, 15:54:56 UTC', and 'Compartment: Network'. On the left, a sidebar lists 'Route Rules (0)' (selected). The main content area shows 'Route Rules' with a table header 'Add Route Rules'. A note says 'No items found.' and '0 Selected'. A note at the bottom says 'Showing 0 items < 1 of 1 >'.

Em Route Rules > Target Type, selecione Internet Gateway.

Add Route Rules

[Help](#)



Important:

For a route rule that targets a Private IP, you must first enable "Skip Source/Destination Check" on the VNIC that the Private IP is assigned to.

Route Rule

TARGET TYPE

Select target type

Select target type

Dynamic Routing Gateway

Internet Gateway

Local Peering Gateway

NAT Gateway

Private IP

Service Gateway

[Add Route Rules](#)

[Cancel](#)

Em Destination CIDR Block, insira 0.0.0.0/0. Em Target Internet Gateway, selecione o Internet gateway criado anteriormente. Feito isso, clique em **Add Route Rules**.

Add Route Rules

[Help](#)



Important:

For a route rule that targets a Private IP, you must first enable "Skip Source/Destination Check" on the VNIC that the Private IP is assigned to.

Route Rule

TARGET TYPE

Internet Gateway

DESTINATION CIDR BLOCK

0.0.0.0/0

Specified IP addresses: 0.0.0.0-255.255.255.255 (4,294,967,296 IP addresses)

TARGET INTERNET GATEWAY IN NETWORK [\(CHANGE COMPARTMENT\)](#)

IGTCB

DESCRIPTION OPTIONAL

Maximum 255 characters

[+ Another Route Rule](#)

[Add Route Rules](#)

[Cancel](#)

Default Route Table for VCNTCB



AVAILABLE

Route Table Information		Tags
OCID: ...qq7j6q Show Copy Created: Wed, Oct 28, 2020, 15:54:56 UTC		
Compartment: Network		

Resources

Route Rules

Add Route Rules		Edit	Remove
Destination	Target Type	Target	Description
<input type="checkbox"/> 0.0.0.0	Internet Gateway	IGTCB	

Showing 1 Item < 1 of 1 >

Nas informações da VCN, em Resources, clique em **Security List**. Em seguida, clique em **Default Security List for VCNTCB**.

VCNTCB



AVAILABLE

VCN Information		Tags
Compartment: Network Created: Wed, Oct 28, 2020, 15:54:56 UTC CIDR Block: 10.0.0.16		
OCID: ...sanx2q Show Copy Default Route Table: Default Route Table for VCNTCB DNS Domain Name: vcntcb.oraclevcn.com		

Resources

Security Lists in Network Compartiment

Create Security List		
Name	State	Created
Default Security List for VCNTCB	Available	Wed, Oct 28, 2020, 15:54:56 UTC

Showing 1 Item < 1 of 1 >

Em **Ingress Rules**, clique em **Add Ingress Rules**.

Default Security List for VCNTCB



AVAILABLE

Security List Information		Tags
OCID: ...la7ina Show Copy Created: Wed, Oct 28, 2020, 15:54:56 UTC		
Compartment: Network		

Resources

Ingress Rules

Add Ingress Rules						
	Stateless	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	22	TCP traffic for ports: 22 SSH Remote Log in Protocol
<input type="checkbox"/>	No	0.0.0.0/0	ICMP		3, 4	ICMP traffic for: 3, 4 Destination Unreachable Fragment Needed and Don't Fragment was Set
<input type="checkbox"/>	No	10.0.0.16	ICMP		3	ICMP traffic for: 3 Destination Unreachable

Showing 3 Items < 1 of 1 >

Em **Source CIDR**, insira 0.0.0.0/0. Em **Destination Port Range**, insira 80. Mais abaixo, insira a descrição da regra e clique em **Add Ingress Rules**.

Ingress Rule 1

Allows TCP traffic 80

 STATELESS [\(i\)](#)

SOURCE TYPE

CIDR

SOURCE CIDR

IP PROTOCOL [\(i\)](#)

0.0.0.0/0

TCP

Specified IP addresses: 0.0.0.0-255.255.255.255 (4,294,967,296 IP addresses)

SOURCE PORT RANGE OPTIONAL [\(i\)](#)DESTINATION PORT RANGE OPTIONAL [\(i\)](#)

All

80

Examples: 80, 20-22

Examples: 80, 20-22

DESCRIPTION OPTIONAL

Allow HTTP Traffic

Maximum 255 characters

[+ Another Ingress Rule](#)[Add Ingress Rules](#)[Cancel](#)

Ingress Rule criada.

Networking » Virtual Cloud Networks » VCNTCB » Security List Details » Ingress Rules

Default Security List for VCNTCB

Instance traffic is controlled by firewall rules on each Instance in addition to this Security List

Move Resource Add Tags Terminate

Security List Information Tags

OCID: ia7ina Show Copy Compartment: Network
Created: Wed, Oct 28, 2020, 15:54:56 UTC

Resources

Ingress Rules

	Add Ingress Rules	Edit	Remove					
<input type="checkbox"/>	Stateless	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows	Description
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	22			TCP traffic for ports: 22 SSH Remote Login Protocol
<input type="checkbox"/>	No	0.0.0.0/0	ICMP			3, 4		ICMP traffic for: 3, 4 Destination Unreachable: Fragmentation Needed and Don't Fragment was Set
<input type="checkbox"/>	No	10.0.0.0/16	ICMP			3		ICMP traffic for: 3 Destination Unreachable
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	80			TCP traffic for ports: 80 Allow HTTP Traffic

0 Selected Showing 4 Items < 1 of 1 >

Criando a Instância

Acesse Menu > Compute > Instances. Em List Scope, Compartiment, selecione **Compute**. Logo, clique em **Create Instance**.

Compute

Instances in Network Compartment

The Compute service helps you provision VMs and bare metal instances to meet your compute and application requirements. An instance is a compute host. Choose between virtual machines (VMs) and bare metal instances. The image that you use to launch an instance determines its operating system and other software.

Create Instance

Name	State	Public IP	Shape	OCPUs Count	Memory (GB)	Availability Domain	Fault Domain	Created
No items found.								

Showing 0 Items < 1 of 1 >

List Scope

COMPARTMENT

Search compartments josuelima1810 (root)
Compute
ManagedCompartmentForPaaS
Network

STATE

Any state

Abaixo, insira o nome desejado para a instância e mantenha o compartimento **Compute** selecionado.

Create Compute Instance

NAME
webserver01

CREATE IN COMPARTMENT
Compute
josuelima1810 (root)/Compute

Configure placement and hardware Edit

Placement

Availability Domain: AD-3 Always Free Eligible
Fault Domain: Oracle will choose the best placement.

Image

Image: Oracle Linux 7.8
Image build: 2020.09.23-0

Shape

Shape: VM.Standard.E2.1.Micro Always Free Eligible
OCPU Count: 1
Memory (GB): 1
Network Bandwidth (Gbps): 0.48

Em **Configure Networking**, clique em **Edit**. Após expandir, em **Network**, selecione a opção **Select Existing Virtual Cloud Network**. Em **Virtual Cloud Network**, clique em **Change Compartment** e selecione o compartimento **Network**. Em Subnet in compute, clique em **Change Compartment** e selecione o compartimento **Network**.

Configure networking Collapse

Networking is how your instance connects to the internet and other resources in the Console. To make sure you can [connect to your instance](#), assign a public IP address to the instance.

NETWORK
 SELECT EXISTING VIRTUAL CLOUD NETWORK CREATE NEW VIRTUAL CLOUD NETWORK ENTER SUBNET OCID

VIRTUAL CLOUD NETWORK IN COMPUTE [\(CHANGE COMPARTMENT\)](#)

No VCNs available under this compartment.

SUBNET
 SELECT EXISTING SUBNET CREATE NEW PUBLIC SUBNET

SUBNET IN COMPUTE [\(CHANGE COMPARTMENT\)](#)

No subnets available for this VCN under selected compartment and AD.

PUBLIC IP ADDRESS
 ASSIGN A PUBLIC IP ADDRESS DO NOT ASSIGN A PUBLIC IP ADDRESS

! Assigning a public IP address makes this instance accessible from the internet. If you're not sure whether you need a public IP address, you can always assign one later.

Após mudar o compartimento, em **Virtual Cloud Network**, selecione a VCN criada. Em **subnet**, mantenha a opção **Select Existing Subnet** selecionada. Em **Subnet in Network**, selecione a subnet criada.

Configure networking

[Networking](#) is how your instance connects to the internet and other resources in the Console. To make sure you can [connect to your instance](#), assign a public IP address to the instance.

NETWORK

SELECT EXISTING VIRTUAL CLOUD NETWORK CREATE NEW VIRTUAL CLOUD NETWORK ENTER SUBNET OCID

VIRTUAL CLOUD NETWORK IN NETWORK ([CHANGE COMPARTMENT](#))

VCNTCB

SUBNET

SELECT EXISTING SUBNET CREATE NEW PUBLIC SUBNET

SUBNET IN NETWORK ([CHANGE COMPARTMENT](#))

subrede-publica-tcb (Regional)

USE NETWORK SECURITY GROUPS TO CONTROL TRAFFIC ([i](#))

PUBLIC IP ADDRESS

ASSIGN A PUBLIC IP ADDRESS DO NOT ASSIGN A PUBLIC IP ADDRESS

! Assigning a public IP address makes this instance accessible from the internet. If you're not sure whether you need a public IP address, you can always assign one later.

Em **Add SSH Keys**, mantenha a opção **Generate SSH Key Pair** selecionada, clique em **Save Private Key** e **Save Public Key**. Em seguida, clique em **Create**.

Add SSH keys

Linux-based instances use an [SSH key pair](#) instead of a password to authenticate remote users. Generate a key pair or upload your own public key now. When you [connect to the instance](#), you will provide the associated private key.

GENERATE SSH KEY PAIR CHOOSE PUBLIC KEY FILES PASTE PUBLIC KEYS NO SSH KEYS

i Download the private key so that you can connect to the instance using SSH. It will not be shown again.

Save Private Key Save Public Key

Configure boot volume

Your [boot volume](#) is a detachable device that contains the image used to boot your compute instance.

SPECIFY A CUSTOM BOOT VOLUME SIZE
Volume performance varies with volume size. Default boot volume size: 46.6 GB

USE IN-TRANSIT ENCRYPTION
Encrypts data in transit between the instance, the boot volume, and the block volumes.

ENCRYPT THIS VOLUME WITH A KEY THAT YOU MANAGE
By default, Oracle manages the keys that encrypt this volume, but you can choose a key from a vault that you have access to if you want greater control over the key's lifecycle and how it's used. [Learn more about managing your own encryption keys](#)

[Show Advanced Options](#)

Create **Create as Stack** **Cancel**

Aguarde o período de provisionamento da VM se concluir.

Work Requests

A [work request](#) is an activity log that tracks each step in an asynchronous operation. Use work requests to monitor the progress of long-running operations.

Operation	State	% Complete	Accepted	Started	Finished
Create instance	● In Progress	5	Wed, Oct 28, 2020, 16:30:41 UTC	Wed, Oct 28, 2020, 16:30:49 UTC	-

Showing 1 item < 1 of 1 >

Compute > Instances > Instance Details > Work Requests > Work Requests Details

Create instance

Work Requests Information

100% Complete

Accepted: Wed, Oct 28, 2020, 16:30:41 UTC
Started: Wed, Oct 28, 2020, 16:30:49 UTC
Finished: Wed, Oct 28, 2020, 16:31:46 UTC

OCID: sng05q [Show](#) [Copy](#)
Compartment: josuelima1810 (root)/Compute

Resources

Log Messages

Message	Timestamp
Powering on virtual machine.	Wed, Oct 28, 2020, 16:31:36 UTC
Provisioning virtual machine.	Wed, Oct 28, 2020, 16:31:04 UTC
Creating VNIC.	Wed, Oct 28, 2020, 16:30:50 UTC

Showing 3 items < Page 1 >

Acessando via SSH a VM criada

Ao acessar o Menu > Compute > Instances, clique na VM webserver01, para visualizer mais detalhes. Em Instance Information, Instance Access, Public IP Address, clique em Copy.

Compute > Instances > Instance Details

webserver01 Always Free

[Start](#) [Stop](#) [Reboot](#) [Edit](#) [More Actions](#)

Instance Information

General Information

Availability Domain: AD-3
Fault Domain: FD-2
Region:iad
OCID: bkkemq [Show](#) [Copy](#)
Launched: Wed, Oct 28, 2020, 16:30:42 UTC
Compartment: josuelima1810 (root)/Compute
Oracle Cloud Agent Management: Enabled

Instance Details

Virtual Cloud Network: VCNTCB
Maintenance Reboot:
Image: Oracle-Linux-7.8-2020.09.23-0
Launch Mode: PARAVIRTUALIZED
Instance Metadata Service: Versions 1 and 2 [Edit](#)
Maintenance Recovery Action: Restore instance

Shape Configuration

Instance Access

You connect to a running Linux instance using a Secure Shell (SSH) connection. You'll need the private key from the SSH key pair that was used to create the instance.

Public IP Address: 150.136.111.231 [Copied](#)
Username: opc

Primary VNIC

Private IP Address: 10.0.30.2
Network Security Groups: None [Edit](#)
Internal FQDN: webserver01... [Show](#) [Copy](#)
Subnet: subrede-publica-lcb

Launch Options

NIC Attachment Type: PARAVIRTUALIZED
Remote Data Volume: PARAVIRTUALIZED
Firmware: UEFI_64
Boot Volume Type: PARAVIRTUALIZED
In-transit Encryption: Disabled

Para conectar à VM, foi utilizado o GitBash e inserido a seguinte linha de comando, obtendo sucesso na conexão via SSH.

```
$ ssh -i webserver01.key opc@150.136.111.231
[opc@webserver01 ~]$
```

Preparação da VM

Saída dos comandos de atualização.

```
[opc@webserver01 ~]$ sudo yum clean all
Loaded plugins: langpacks, ulninfo
Cleaning repos: ol7_uekr5 ol7_addons ol7_developer ol7_developer_EPEL ol7_ksplice ol7_latest ol7_oci_included ol7_optional_latest
other repos take up 2.4 M of disk space (use --verbose for details)
[opc@webserver01 ~]$ sudo yum -y update
Loaded plugins: langpacks, ulninfo
ol7_uekr5
ol7_addons
ol7_developer
ol7_developer_EPEL
ol7_ksplice
ol7_latest
ol7_oci_included
ol7_optional_latest
ol7_software_collections
(1/19): ol7_uekr5/x86_64/updateinfo
(2/19): ol7_developer/x86_64/primary_db
(3/19): ol7_developer_EPEL/x86_64/group_gz
(4/19): ol7_addons/x86_64/primary_db
(5/19): ol7_developer_EPEL/x86_64/updateinfo
(6/19): ol7_ksplice/updateinfo
(7/19): ol7_ksplice/primary_db
(8/19): ol7_addons/x86_64/updateinfo
(9/19): ol7_latest/x86_64/group_gz
(10/19): ol7_developer/x86_64/updateinfo
(11/19): ol7_oci_included/x86_64/primary_db
(12/19): ol7_latest/x86_64/updateinfo
(13/19): ol7_uekr5/x86_64/primary_db
(14/19): ol7_optional_latest/x86_64/updateinfo
(15/19): ol7_software_collections/x86_64/updateinfo
(16/19): ol7_optional_latest/x86_64/primary_db
(17/19): ol7_developer_EPEL/x86_64/primary_db
(18/19): ol7_software_collections/x86_64/primary_db
(19/19): ol7_latest/x86_64/primary_db
| 2.8 kB 00:00:00
| 2.8 kB 00:00:00
| 2.8 kB 00:00:00
| 3.4 kB 00:00:00
| 2.8 kB 00:00:00
| 3.4 kB 00:00:00
| 2.9 kB 00:00:00
| 2.8 kB 00:00:00
| 2.8 kB 00:00:00
| 40 kB 00:00:00
| 636 kB 00:00:00
| 87 kB 00:00:00
| 162 kB 00:00:00
| 6.3 kB 00:00:00
| 5.8 kB 00:00:00
| 1.1 MB 00:00:00
| 93 kB 00:00:00
| 134 kB 00:00:00
| 7.2 kB 00:00:00
| 379 kB 00:00:00
| 3.1 MB 00:00:00
| 6.2 MB 00:00:01
| 1.2 MB 00:00:00
| 8.7 kB 00:00:00
| 5.1 MB 00:00:00
| 1.2 MB 00:00:00
| 5.1 MB 00:00:00
| 28 MB 00:00:00
nss-sysinit.x86_64 0:3.53.1-3.el7_9
nss-util.x86_64 0:3.53.1-1.el7_9
numactl-libs.x86_64 0:2.0.12-5.0.3.el7
openldap.x86_64 0:2.4.44-22.el7
oracle-logos.noarch 0:70.7.0-1.0.7.el7
oraclelinux-release-el7.x86_64 0:1.0-13.1.el7
perl-Pod-Escapes.noarch 1:1.04-297.el7
perl-macros.x86_64 4:5.16.3-297.el7
python.x86_64 0:2.7.5-89.0.1.el7
python-libs.x86_64 0:2.7.5-89.0.1.el7
python-requests.noarch 0:2.6.0-10.el7
python3.x86_64 0:3.6.8-17.0.1.el7
python3-pip.noarch 0:9.0.3-8.el7
rhnlib.noarch 0:2.5.65-8.0.3.el7
rpm-build-libs.x86_64 0:4.11.3-45.el7
rpm-python.x86_64 0:4.11.3-45.el7
sed.x86_64 0:4.2.2-7.el7
selinux-policy-targeted.noarch 0:3.13.1-268.0.1.el7
sos.noarch 0:3.9-4.0.1.el7_9
strace.x86_64 0:4.24-6.el7
systemd.x86_64 0:219-78.0.1.el7
systemd-python.x86_64 0:219-78.0.1.el7
systemtap.x86_64 0:4.0-13.0.1.el7
systemtap-devel.x86_64 0:4.0-13.0.1.el7
tcsh.x86_64 0:6.18.01-17.el7
tuned.noarch 0:2.11.0-9.0.3.el7
tuned-profiles-oci-recommend.noarch 0:2.11.0-9.0.3.el7
uptrack.noarch 0:1.2.68-0.el7
vdo.x86_64 0:6.1.3-23-5.el7
vim-enhanced.x86_64 2:7.4.629-7.0.1.el7
vim-minimal.x86_64 2:7.4.629-7.0.1.el7
nss-tools.x86_64 0:3.53.1-3.el7_9
ntsysv.x86_64 0:1.7.6-1.el7
oci-utils.noarch 0:0.11.6-8.el7
oracle-cloud-agent.x86_64 0:1.5.1-3277.el7
oraclelinux-release.x86_64 7:7.9-1.0.9.el7
perl.x86_64 4:5.16.3-297.el7
perl-libs.x86_64 4:5.16.3-297.el7
procps-ng.x86_64 0:3.3.10-28.el7
python-firewall.noarch 0:0.6.3-11.0.1.el7
python-perf.x86_64 0:3.10.0-1160.2.2.el7
python-setuptools.noarch 0:18.0.1-2.el7
python3-libs.x86_64 0:3.6.8-17.0.1.el7
redhat-release-server.x86_64 1:7.9-3.0.1.el7
rpm.x86_64 0:4.11.3-45.el7
rpm-libs.x86_64 0:4.11.3-45.el7
rsyslog.x86_64 0:8.24.0-57.el7_9
selinux-policy.noarch 0:3.13.1-268.0.1.el7
shim-x64.x86_64 0:15-2.0.9.el7
sssd-client.x86_64 0:1.16.5-10.0.1.el7_9.5
sudo.x86_64 0:1.8.23-10.el7
systemd-libs.x86_64 0:219-78.0.1.el7
systemd-sysv.x86_64 0:219-78.0.1.el7
systemtap-client.x86_64 0:4.0-13.0.1.el7
systemtap-runtime.x86_64 0:4.0-13.0.1.el7
teamd.x86_64 0:1.29-3.el7
tuned-profiles-oci.noarch 0:2.11.0-9.0.3.el7
tzdata.noarch 0:2020d-2.el7
util-linux.x86_64 0:2.23-2.65.0.1.el7
vim-common.x86_64 2:7.4.629-7.0.1.el7
vim-filesystem.x86_64 2:7.4.629-7.0.1.el7
yum.noarch 0:3.4.3-168.0.3.el7
Replaced:
PyYAML.x86_64 0:3.10-11.el7          python-cffi.x86_64 0:1.6.0-5.el7          python-chardet.noarch 0:2.2.1-3.el7
python-idna.noarch 0:2.4-1.el7        python-urllib3.noarch 0:1.10.2-7.el7
complete!
```

Após a atualização ser concluída, utilize o comando **yum -y install httpd**, para instalar o Apache.

```
Installed:
httpd.x86_64 0:2.4.6-95.0.1.el7
Dependency Installed:
apr.x86_64 0:1.4.8-7.el7  apr-util.x86_64 0:1.5.2-6.0.1.el7  httpd-tools.x86_64 0:2.4.6-95.0.1.el7  mailcap.noarch 0:2.1.41-2.el7
complete!
```

Com a instalação concluída, será necessário aplicar alguns comandos para conclusão da preparação da VM, como:

- sudo systemctl start httpd
- sudo systemctl enable httpd
- sudo firewall-cmd –permanent –zone=public –add-service=http
- sudo firewall-cmd –reload

```

Installed size: 4.3 M
Downloading packages:
(1/5): apr-1.4.8-7.el7.x86_64.rpm | 103 kB 00:00:00
(2/5): httpd-2.4.6-95.0.1.el7.x86_64.rpm | 1.2 MB 00:00:00
(3/5): httpd-tools-2.4.6-95.0.1.el7.x86_64.rpm | 92 kB 00:00:00
(4/5): apr-util-1.5.2-6.0.1.el7.x86_64.rpm | 91 kB 00:00:00
(5/5): mailcap-2.1.41-2.el7.noarch.rpm | 30 kB 00:00:00
-----
Total                                         3.0 MB/s | 1.5 MB 00:00:00

Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : apr-1.4.8-7.el7.x86_64          1/5
  Installing : apr-util-1.5.2-6.0.1.el7.x86_64 2/5
  Installing : httpd-tools-2.4.6-95.0.1.el7.x86_64 3/5
  Installing : mailcap-2.1.41-2.el7.noarch    4/5
  Installing : httpd-2.4.6-95.0.1.el7.x86_64   5/5
  Verifying  : httpd-tools-2.4.6-95.0.1.el7.x86_64 1/5
  Verifying  : apr-util-1.5.2-6.0.1.el7.x86_64   2/5
  Verifying  : mailcap-2.1.41-2.el7.noarch     3/5
  Verifying  : apr-1.4.8-7.el7.x86_64           4/5
  Verifying  : httpd-2.4.6-95.0.1.el7.x86_64   5/5

Installed:
  httpd.x86_64 0:2.4.6-95.0.1.el7

Dependency Installed:
  apr.x86_64 0:1.4.8-7.el7  apr-util.x86_64 0:1.5.2-6.0.1.el7  httpd-tools.x86_64 0:2.4.6-95.0.1.el7  mailcap.noarch 0:2.1.41-2.el7

Complete!
[opc@webserver01 ~]$ sudo systemctl start httpd
[opc@webserver01 ~]$ sudo systemctl enable httpd
created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[opc@webserver01 ~]$ sudo firewall-cmd --permanent --zone=public --add-service=http
success
[opc@webserver01 ~]$ sudo firewall-cmd --reload
success

```

Utilizando o comando **sudo systemctl status httpd**, para validar o funcionamento do Apache.

```
[opc@webserver01 ~]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
  Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
  Active: active (running) since wed 2020-10-28 17:14:13 GMT; 7min ago
    Docs: man:httpd(8)
           man:apachectl(8)
  Main PID: 5179 (httpd)
  Status: "Total requests: 4; Current requests/sec: 0; Current traffic: 0 B/sec"
  CGroup: /system.slice/httpd.service
          └─5179 /usr/sbin/httpd -DFOREGROUND
              ├─5180 /usr/sbin/httpd -DFOREGROUND
              ├─5181 /usr/sbin/httpd -DFOREGROUND
              ├─5182 /usr/sbin/httpd -DFOREGROUND
              ├─5183 /usr/sbin/httpd -DFOREGROUND
              ├─5184 /usr/sbin/httpd -DFOREGROUND
              └─5902 /usr/sbin/httpd -DFOREGROUND

oct 28 17:14:13 webserver01 systemd[1]: Starting The Apache HTTP Server...
oct 28 17:14:13 webserver01 systemd[1]: Started The Apache HTTP Server.
```

Após a verificação, navegue de volta à console da OCI e copie o IP Público da VM.

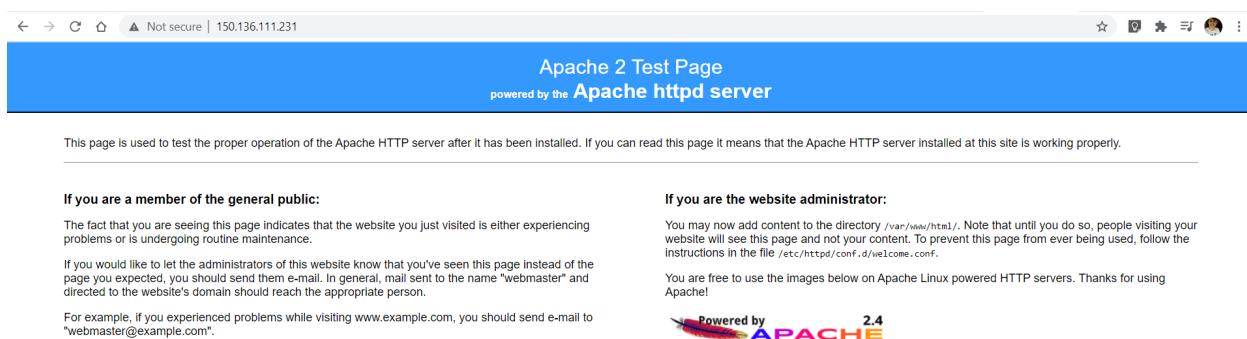
Instances in Compute Compartiment

The Compute service helps you provision VMs and bare metal instances to meet your compute and application requirements. An [instance](#) is a compute host. Choose between virtual machines (VMs) and bare metal instances. The image that you use to launch an instance determines its operating system and other software.

Create Instance								
Name	State	Public IP	Shape	OCPUs Count	Memory (GB)	Availability Domain	Fault Domain	Created
webserver01 Always Free	● Running	150.136.111.231	Copy		AD-3	FD-2	Wed, Oct 28, 2020, 16:30:42 UTC	⋮

Feito isso, abra o seu navegador, cole o IP público para acessar o site em execução na VM.

Se tudo estiver funcionando corretamente, você verá a tela de Welcome do Apache, conforme figura abaixo.



Criação do Bucket

Acesse **Menu > Object Storage > Object Storage**, clique em **Create Bucket**.

Buckets in Compute Compartment

Object Storage provides unlimited, high-performance, durable, and secure data storage. Data is uploaded as objects that are stored in buckets. [Learn more](#)

You are using approximately 0 bytes of the 20 GiB limit of free combined Object Storage and Archive Storage. [Upgrade](#) to use unlimited storage. [Show details](#)

Create Bucket

Name	Storage Tier	Visibility	Created
No items found.			

Showing 0 items < 1 of 1 >

Insira o **nome do bucket** e clique em **Create Bucket**.

Create Bucket [Help](#) [Cancel](#)

BUCKET NAME

STORAGE TIER
Storage tier for a bucket can only be specified during creation. Once set, you cannot change the storage tier in which a bucket resides.
 STANDARD
 ARCHIVE

OBJECT EVENTS (i)
 EMIT OBJECT EVENTS

OBJECT VERSIONING (i)
 ENABLE OBJECT VERSIONING

ENCRYPTION
 ENCRYPT USING ORACLE MANAGED KEYS
Leaves all encryption-related matters to Oracle.
 ENCRYPT USING CUSTOMER-MANAGED KEYS
Requires a valid key from a vault that you have access to. ([Learn More](#))

TAGS
Tagging is a metadata system that allows you to organize and track resources within your tenancy. Tags are composed of keys and values that can be attached to resources.
[Learn more about tagging](#)

TAG NAMESPACE	TAG KEY	VALUE
None (add a free-form tag) <input type="button" value="▼"/>		

[+ Additional Tag](#)

Create Bucket **Cancel**

Após a criação do bucket, em detalhes do bucket criado (3 pontos), clique em **Edit Visibility**.

Buckets in Compute Compartment

You are using approximately 0 bytes of the 20 GiB limit of free combined Object Storage and Archive Storage. [Upgrade](#) to use unlimited storage. [Show details](#).

Name	Storage Tier	Visibility	Created
bucket-webdesignerstcb	Standard	Private	Wed, Oct 28, 2020, 16:43:18 UTC

Edit Visibility

- View Bucket Details
- Create Pre-Authenticated Request
- Move Resource
- Edit Visibility**
- Add Tags
- View Tags
- Delete

Em **Visibility**, selecione **Public** e clique em **Save Changes**.

Edit Visibility

Help Cancel

Enabling public visibility will let anonymous and unauthenticated users access data stored in the bucket.

VISIBILITY

PRIVATE

PUBLIC

ALLOW USERS TO LIST OBJECTS FROM THIS BUCKET

Save Changes Cancel

Fazendo upload do arquivo com o site para o bucket

Clique no bucket (bucket-webdesignerstcb) para acessar mais recursos.

Buckets in Compute Compartment

You are using approximately 0 bytes of the 20 GiB limit of free combined Object Storage and Archive Storage. [Upgrade](#) to use unlimited storage. [Show details](#).

Name	Storage Tier	Visibility	Created
bucket-webdesignerstcb	Standard	▲ Public	Wed, Oct 28, 2020, 16:43:18 UTC

Showing 1 item < 1 of 1 >

Em Objects, clique em Upload.

Object Storage » Bucket Details

You are using approximately 0 bytes of the 20 GiB limit of free combined Object Storage and Archive Storage. [Upgrade](#) to use unlimited storage. [Show details](#).

bucket-webdesignerstcb

Edit Visibility | Move Resource | Re-encrypt | Add Tags | Delete

Bucket Information | Tags

Visibility: ▲ Public
Namespace: id301pemjz90
Storage Tier: Standard
Approximate Count: 1 objects ⓘ
ETag: 9fb593c-6242-4605-a010-47f198a3002b
OCID: jwzbjja [Show](#) [Copy](#)

Encryption Key: Oracle managed key [Assign](#)
Created: Wed, Oct 28, 2020, 16:43:18 UTC
Compartment: Compute
Approximate Size: 1.33 MiB ⓘ
Emit Object Events: ⓘ Disabled [Edit](#) ⓘ
Object Versioning: ⓘ Disabled [Edit](#) ⓘ

Resources

Objects

Upload More Actions ▾ Search by prefix

Em **Upload Objects**, defina um Object Name Prefix. Logo, em **Choose Files from Your Computer**, clique em select files, para direcionar o arquivo do site localizado em seu computador. Após selecionar, clique em **Upload**.

Upload Objects

[Help](#)

OBJECT NAME PREFIX OPTIONAL

CHOOSE FILES FROM YOUR COMPUTER

Drop files here or [select files](#)

website-files.zip 1.33 MiB X

1 files, 1.33 MiB total

[Show Optional Response Headers and Metadata](#)

[Upload](#) [Cancel](#)

Com o Upload concluído, clique em **Close**.

Upload Objects

OBJECT NAME PREFIX OPTIONAL

website-files

CHOOSE FILES FROM YOUR COMPUTER

Drop files here or [select files](#)

website-files.zip 1.33 MiB

1 files, 1.33 MiB total

[Show Optional Response Headers and Metadata](#)

Finished

[Close](#)

Em Objects, no arquivo feito o upload, clique nos 3 pontos e, em seguida, **View Object Details**.

You are using approximately 0 bytes of the 20 GiB limit of free combined Object Storage and Archive Storage. [Upgrade](#) to use unlimited storage. [Show details](#).

bucket-webdesignerstcb

Edit Visibility Move Resource Re-encrypt Add Tags Delete

Bucket Information Tags

Visibility: Public Namespace: id301permjz90 Storage Tier: Standard Approximate Count: 1 objects ETag: 9f8fe593c-6242-4605-a010-47f198a3bb2b OCID: ..._jwzbjja Show Copy

Encryption Key: Oracle managed key [Assign](#) Created: Wed, Oct 28, 2020, 16:43:18 UTC Compartment: Compute Approximate Size: 1.33 MiB [Edit](#) Emit Object Events: Disabled [Edit](#) Object Versioning: Disabled [Edit](#)

Resources

Objects

Upload More Actions Search by prefix

Name	Last Modified	Size	Status
website-files.zip	Wed, Oct 28, 2020, 16:44:45 UTC	1.33 MiB	View Object Details Download Copy Restore

Em **Object Details, Basic Information**, copie o link localizado em **URL Path (URI)**.

Object Details

Basic Information

Name: website-fileswebsite-files.zip

URL Path (URI): <https://objectstorage.us-ashburn-1.oraclecloud.com/n/id3o1pemjz90/b/bucket-webdesignerstcb/o/website-fileswebsite-files.zip>

Storage Tier: Standard

Size: 1.33 MiB

Response Headers

Accept-Ranges: bytes

Content Length: 1395999

Content MD5 Hash: S+1L3ikdBZXsHv2S0M8mmw==

Content Type: application/x-zip-compressed

Date: Wed, 28 Oct 2020 17:00:02 GMT

ETag: 8586af51-509d-4c7e-8bf8-d9d872de89fa

Last Modified: Wed, Oct 28, 2020, 16:44:45 UTC

storage-tier: Standard

x-api-id: native

Acesse a instância via SSH e execute o comando **sudo wget <URL-path-copiada>**.

```
[opc@webserver01 ~]$ sudo wget https://objectstorage.us-ashburn-1.oraclecloud.com/n/id3o1pemjz90/b/bucket-webdesignerstcb/o/website-fil  
es-tcbwebsite-files.zip --2020-10-28 17:31:37-- https://objectstorage.us-ashburn-1.oraclecloud.com/n/id3o1pemjz90/b/bucket-webdesignerstcb/o/website-files-tcb  
website-files.zip  
Resolving objectstorage.us-ashburn-1.oraclecloud.com (objectstorage.us-ashburn-1.oraclecloud.com)... 134.70.27.247, 134.70.35.189, 134.  
70.31.247  
Connecting to objectstorage.us-ashburn-1.oraclecloud.com (objectstorage.us-ashburn-1.oraclecloud.com)|134.70.27.247|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 1395999 (1.3M) [application/x-zip-compressed]  
Saving to: 'website-files-tcbwebsite-files.zip'  
  
100%[=====] 1,395,999 --.-K/s in 0.01s  
2020-10-28 17:31:38 (129 MB/s) - 'website-files-tcbwebsite-files.zip' saved [1395999/1395999]
```

Descompacte o arquivo com o comando **sudo unzip <nome-do-arquivo-do-site>**.

```
[opc@webserver01 ~]$ sudo unzip website-files-tcbwebsite-files.zip
Archive: website-files-tcbwebsite-files.zip
  creating: website-files/
  inflating: website-files/index.html
  creating: __MACOSX/
  creating: __MACOSX/website-files/
  inflating: __MACOSX/website-files/.._index.html
  inflating: website-files/.DS_Store
  inflating: __MACOSX/website-files/.._.DS_Store
  creating: website-files/images/
  inflating: website-files/images/.DS_Store
  inflating: website-files/images/pic01.jpg
  inflating: website-files/images/background.jpeg
  inflating: website-files/LICENSE.txt
  creating: website-files/assets/
  inflating: website-files/assets/.DS_Store
  creating: website-files/assets/css/
  inflating: website-files/assets/css/main.css
  inflating: website-files/assets/css/font-awesome.min.css
  creating: website-files/assets/js/
  inflating: website-files/assets/js/util.js
  inflating: website-files/assets/js/jquery.scrollly.min.js
  inflating: website-files/assets/js/jquery.min.js
  inflating: website-files/assets/js/main.js
  inflating: website-files/assets/js/skel.min.js
  inflating: website-files/assets/js/jquery.scrolllex.min.js
  creating: website-files/assets/fonts/
  inflating: website-files/assets/fonts/fontawesome-webfont.svg
  inflating: website-files/assets/fonts/FontAwesome.otf
  inflating: website-files/assets/fonts/fontawesome-webfont.woff2
  inflating: website-files/assets/fonts/fontawesome-webfont.ttf
  inflating: website-files/assets/fonts/fontawesome-webfont.woff
  inflating: website-files/assets/fonts/fontawesome-webfont.eot
```

Agora, copie os arquivos da pasta **website-files** para o diretório **/var/www/html**, utilizando o comando:

- sudo sync -avP ~/website-files/ /var/www/html/

```
[opc@webserver01 ~]$ sudo rsync -avP ~/website-files/ /var/www/html/
sending incremental file list
./
.DS_Store
      6,148 100%    0.00kB/s   0:00:00 (xfr#1, to-chk=25/27)
LICENSE.txt
     17,130 100%   16.34MB/s   0:00:00 (xfr#2, to-chk=24/27)
index.html
      2,940 100%   2.80MB/s   0:00:00 (xfr#3, to-chk=23/27)
assets/
assets/.DS_Store
      6,148 100%   5.86MB/s   0:00:00 (xfr#4, to-chk=20/27)
assets/css/
assets/css/font-awesome.min.css
     29,063 100%  27.72MB/s   0:00:00 (xfr#5, to-chk=16/27)
assets/css/main.css
     66,822 100%  63.73MB/s   0:00:00 (xfr#6, to-chk=15/27)
assets/fonts/
assets/fonts/FontAwesome.otf
  124,988 100% 39.73MB/s   0:00:00 (xfr#7, to-chk=14/27)
assets/fonts/fontawesome-webfont.eot
     76,518 100% 24.32MB/s   0:00:00 (xfr#8, to-chk=13/27)
assets/fonts/fontawesome-webfont.svg
```

```
website-files/assets/js/main.js
      3,575 100% 290.93kB/s   0:00:00 (xfr#16, to-chk=5/27)
website-files/assets/js/skel.min.js
      9,085 100% 739.34kB/s   0:00:00 (xfr#17, to-chk=4/27)
website-files/assets/js/util.js
     12,433 100% 1011.80kB/s   0:00:00 (xfr#18, to-chk=3/27)
website-files/images/
website-files/images/.DS_Store
      6,148 100% 500.33kB/s   0:00:00 (xfr#19, to-chk=2/27)
website-files/images/background.jpeg
  310,041 100% 18.48MB/s   0:00:00 (xfr#20, to-chk=1/27)
website-files/images/pic01.jpg
  507,126 100% 26.87MB/s   0:00:00 (xfr#21, to-chk=0/27)

sent 1,985,894 bytes  received 459 bytes  3,972,706.00 bytes/sec
total size is 1,983,936  speedup is 1.00
```

Com a pasta copiada, ajuste as permissões da pasta com os comandos:

- sudo chown -R apache:apache /var/www/html/
- sudo chmod -R 775 /var/www/html/

Em seguida, execute os comandos para verificação e reinicie o apache:

- cd /var/www/html
- ls -l
- sudo systemctl restart httpd

```
[opc@webserver01 ~]$ sudo chown -R apache:apache /var/www/html/
[opc@webserver01 ~]$ sudo chmod -R 775 /var/www/html/
[opc@webserver01 ~]$ cd /var/www/html
[opc@webserver01 html]$ ls -l
total 24
drwxrwxr-x. 5 apache apache 57 Apr  4 2020 assets
drwxrwxr-x. 2 apache apache 63 Oct 28 14:41 images
-rwxrwxr-x. 1 apache apache 2940 Oct 28 14:53 index.html
-rwxrwxr-x. 1 apache apache 17130 Jan  4 2017 LICENSE.txt
[opc@webserver01 html]$ sudo systemctl restart httpd
```

Após a execução do comando de reinicialização, retorne à console da OCI, acesse o menu > Compute > Instances. Copie o IP público da VM **webserver01**, cole no seu navegador e aperte enter para acessar o site. Com tudo de acordo, a sua página de Parabéns será exibida da forma como a figura abaixo. Excelente trabalho!

