Openstack User Tutorial

Based on Openstack Stein

Web frontend: Dashboard

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Login:
https://stratus.ncg.ingrid.pt

Domain: default
Username: <your_username>
Password: <your_password>
To change the password

User Settings

Language
English (en)

Timezone
UTC

Items Per Page
20

Log Lines Per Instance
35
Images and snapshots

Images

- centos6-x86_64
  - Type: Image
  - Status: Active
  - Visibility: Public
  - Protected: No
  - Disk Format: QCOW2
  - Size: 755.88 MB
  - LAUNCH

- centos6-x86_64-raw
  - Type: Image
  - Status: Active
  - Visibility: Public
  - Protected: No
  - Disk Format: RAW
  - Size: 8.00 GB
  - LAUNCH

- centos7-x86_64
  - Type: Image
  - Status: Active
  - Visibility: Public
  - Protected: No
  - Disk Format: QCOW2
  - Size: 897.75 MB
  - LAUNCH

- centos7-x86_64-raw
  - Type: Image
  - Status: Active
  - Visibility: Public
  - Protected: No
  - Disk Format: RAW
  - Size: 8.00 GB
  - LAUNCH

Click here for filters or full text search.
Dashboard – Launch images

Launch (Instantiate) an Image
Launch Instance

Please provide the initial hostname for the instance, the availability zone where it will be deployed, and the instance count. Increase the Count to create multiple instances with the same settings.

Details *

Source

Instance Name *

Description

Networks *

Availability Zone

nova

Network Ports

Security Groups

Count *

1

Key Pair

Configuration

Server Groups

Scheduler Hints

Metadata

Total Instances (10 Max)

20%

1 Current Usage
1 Added
8 Remaining

Cancel

Launch Instance
Launch instance - Image

Choose image
Set delete volume
Launch instance - Flavor

Choose flavor

<table>
<thead>
<tr>
<th>Name</th>
<th>VCPUS</th>
<th>RAM</th>
<th>Total Disk</th>
<th>Root Disk</th>
<th>Ephemeral Disk</th>
<th>Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>svc2.s</td>
<td>2</td>
<td>2 GB</td>
<td>40 GB</td>
<td>40 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
<tr>
<td>svc1.xs</td>
<td>1</td>
<td>1 GB</td>
<td>10 GB</td>
<td>10 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
<tr>
<td>svc1.s</td>
<td>1</td>
<td>2 GB</td>
<td>40 GB</td>
<td>40 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
<tr>
<td>svc3.s</td>
<td>1</td>
<td>2 GB</td>
<td>750 GB</td>
<td>750 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
<tr>
<td>svc3.m</td>
<td>2</td>
<td>4 GB</td>
<td>750 GB</td>
<td>750 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
<tr>
<td>svc1.m</td>
<td>2</td>
<td>4 GB</td>
<td>40 GB</td>
<td>40 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
<tr>
<td>svc2.m</td>
<td>4</td>
<td>4 GB</td>
<td>40 GB</td>
<td>40 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
<tr>
<td>svc3.l</td>
<td>4</td>
<td>8 GB</td>
<td>750 GB</td>
<td>750 GB</td>
<td>0 GB</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Launch instance - Network

Choose network

Allocated

- tutorial_net
  - tutorial_subnet
  - No
  - Up
  - Active

Available

- public_net
  - cnet_subnet
  - public_subnet
  - Yes
  - Up
  - Active
Launch instance - Key pair

Add ssh public key if you plan to login through ssh

Launch the instance
Dashboard - Instances

Building - spawning
Instance - detailed information

Project

Compute

Overview

Instances

Images

Key Pairs

Server Groups

Volumes

Network

Object Store

Identity

API Access

Active - running

Overview | Interfaces | Log | Console | Action Log
--- | --- | --- | --- | ---
Name | test-tut | | | |
ID | f6b36c2b-7b39-47e1-860a-dd32c2fe60c8 | | | |
Description | | | | |
Project ID | e51b88b3b3045adbf52a5d556912e4c | | | |
Status | Active | | | |
Locked | False | | | |
Availability Zone | nova | | | |
Created | Sept. 6, 2019, 2:43 p.m. | | | |
Age | 0 minutes | | | |
Specs

Flavor Name | svc2.5 | | | |
Flavor ID | 47a96f34-9054-e605-9ad5-0babac3c6e06 | | | |
RAM | 2GB | | | |
VCPUs | 2 VCPU | | | |
Disk | 40GB | | | |

IP Addresses

tutorial_net | 192.168.1.22

Security Groups

default | ALLOW IPv4 from default
ALLOW IPv4 from 0.0.0.0/0
ALLOW IPv4 to 0.0.0.0/0
ALLOW IPv6 from 0.0.0.0/0
ALLOW IPv6 to 0.0.0.0/0
ALLOW IPv4 22/tcp from 0.0.0.0/0
ALLOW IPv6 from default
ALLOW IPv6 to 0.0.0.0/0
Instance console

If console is not responding to keyboard input, click the grey status bar below. **Click here to show only console**

To exit the fullscreen mode, click the browser’s back button.

Connected (encrypted) to: QEMU (instance-0000210f)

CentOS Linux 7 (Core)
Kernel 3.10.0-957.12.2.el7.x86_64 on an x86_64

test-tut login:
Associate floating (Public) IP
Associate floating (Public) IP
david@pcdavid:~$
david@pcdavid:~$ ssh centos@194.210.120.123
Warning: Permanently added '194.210.120.123' (ECDSA) to the list of known hosts.
X11 forwarding request failed on channel 0
[centos@test-tut ~]$
Dashboard – Network topology
Dashboard – Volumes

Create a volume

Volumes

https://stratus.ncg.ingrid.pt/
Dashboard – Create a Volume

Volume name

Volume size

Create volume
Dashboard – Volumes

Volumes

- test-vol
  - Description: -
  - Size: 10GB
  - Status: Available
  - Group: -
  - Type: -
  - Attached To: nova
  - Availability Zone: -
  - Bootable: No
  - Encrypted: No

- 01f6-4d12-ac6b-e158c800a49
  - Description: -
  - Size: 40GB
  - Status: In-use
  - Group: -
  - Type: -
  - Attached To: /dev/sda on test-tut
  - Availability Zone: nova
  - Bootable: Yes
  - Encrypted: No

- f115-816-4e34-9982-b1f16fa39edf
  - Description: -
  - Size: 650GB
  - Status: In-use
  - Group: -
  - Type: -
  - Attached To: /dev/sda on tut
  - Availability Zone: nova
  - Bootable: Yes
  - Encrypted: No

Newly created Volume

Attach to instance

https://stratus.ncg.ingrid.pt/
Dashboard – Attach Volume

Select which instance to attach volume

Attach to instance

Attach to Instance

TEST-TUT (F6B36CB2-7B59-47E1-860A-DD32C2FE60C8)
Volume device in VM

<table>
<thead>
<tr>
<th>Volume Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attached: 0f1f6a2-c02d-4d12-ac6b-ef58cf890a49 on /dev/sda</td>
</tr>
<tr>
<td>Attached To: testvol on /dev/sdb</td>
</tr>
</tbody>
</table>
### Console - Partitions

#### Check partition table

```
[centos@test-tut ~]$ cat /proc/partitions
major minor  #blocks  name
 8     0   41943040  sda
 8     1   41941999  sda1
 8    16   10485760  sdb
```

#### Format device

```
[centos@test-tut ~]$ sudo mkfs.xfs /dev/sdb
```

#### Formatted device

```
[centos@test-tut ~]$ sudo parted /dev/sdb
GNU Parted 3.1
Using /dev/sdb
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) print
Model: QEMU QEMU HARDDISK (scsi)
Disk /dev/sdb: 10,7GB
Sector size (logical/physical): 512B/512B
Partition Table: loop
Disk Flags:

<table>
<thead>
<tr>
<th>Number</th>
<th>Start</th>
<th>End</th>
<th>Size</th>
<th>File system</th>
<th>Flags</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0,008</td>
<td>10,7GB</td>
<td>10,7GB</td>
<td>xfs</td>
<td></td>
</tr>
</tbody>
</table>
```
## Dashboard – Create a snapshot

### Create snapshot - live instance

**Instances**

<table>
<thead>
<tr>
<th>Instance Name</th>
<th>Image Name</th>
<th>IP Address</th>
<th>IP Address 1</th>
<th>Flavor</th>
<th>Key Pair</th>
<th>Status</th>
<th>Availability Zone</th>
<th>Task</th>
<th>Power State</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>test-tut</td>
<td>centos7-x86-64 row</td>
<td>192.168.1.22</td>
<td></td>
<td>svc2.a</td>
<td>mdevid</td>
<td>Active</td>
<td>nova</td>
<td>None</td>
<td>Running</td>
<td>2 minutes</td>
</tr>
<tr>
<td>tut</td>
<td>centos7-x86-64 row</td>
<td>192.168.1.57, 194.210.120.43</td>
<td></td>
<td>svc1.nl</td>
<td>mdevid</td>
<td>Active</td>
<td>nova</td>
<td>None</td>
<td>Running</td>
<td>6 days, 23 hours</td>
</tr>
</tbody>
</table>

In the Actions column, you can select the instance and choose to Create Snapshot.
Dashboard – Create a snapshot

Create Snapshot

Snapshot name: test-snap

Description:
A snapshot is an image which preserves the disk state of a running instance.

Create snapshot
## Images

Click here for filters or full text search.

Displaying 17 items

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Status</th>
<th>Visibility</th>
<th>Protected</th>
<th>Disk Format</th>
<th>Size</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>ubuntu-19.04-amd64-raw</td>
<td>Image</td>
<td>Active</td>
<td>Public</td>
<td>No</td>
<td>RAW</td>
<td>2.20 GB</td>
<td>LAUNCH</td>
</tr>
<tr>
<td>ubuntu-19.04-amd64</td>
<td>Image</td>
<td>Active</td>
<td>Public</td>
<td>No</td>
<td>QCOW2</td>
<td>473.19 MB</td>
<td>LAUNCH</td>
</tr>
<tr>
<td>ubuntu-18.04-amd64-raw</td>
<td>Image</td>
<td>Active</td>
<td>Public</td>
<td>No</td>
<td>RAW</td>
<td>2.20 GB</td>
<td>LAUNCH</td>
</tr>
<tr>
<td>ubuntu-18.04-amd64</td>
<td>Image</td>
<td>Active</td>
<td>Public</td>
<td>No</td>
<td>QCOW2</td>
<td>327.63 MB</td>
<td>LAUNCH</td>
</tr>
<tr>
<td>ubuntu-16.04-amd64-raw</td>
<td>Image</td>
<td>Active</td>
<td>Public</td>
<td>No</td>
<td>RAW</td>
<td>2.20 GB</td>
<td>LAUNCH</td>
</tr>
<tr>
<td>ubuntu-16.04-amd64</td>
<td>Image</td>
<td>Active</td>
<td>Public</td>
<td>No</td>
<td>QCOW2</td>
<td>282.75 MB</td>
<td>LAUNCH</td>
</tr>
<tr>
<td>test-snap</td>
<td>Snapshot</td>
<td>Active</td>
<td>Private</td>
<td>No</td>
<td>QCOW2</td>
<td>0 bytes</td>
<td>LAUNCH</td>
</tr>
</tbody>
</table>
Dashboard – Show snapshot test-snap

**Image**

- **ID**: affb1b5c-ed90-4b26-a60-99fd1e28ca2a
- **Type**: Active
- **Size**: 0 bytes
- **Min. Disk**: 40
- **Min. RAM**: 0
- **Disk Format**: QCOW2
- **Container Format**: BARE
- **Created At**: 9/16/19 12:01 PM
- **Updated At**: 9/16/19 12:02 PM

**Security**

- **Owner**: e51b8a9b30945adb5b2a5d568912e4c
- **Filename**: -
- **Visibility**: Private
- **Protected**: No
- **Checksum**: d41d8cd98f00b204c9800998ecbf8427c

**Custom Properties**

- **bdm_v2**: True
- **Virtual Size**: c8f3e1357eeb8bdf1542850d86d8007d620e4050b5715d0a921d36ee9ce47d0d13c5d85f2b0ff831d4d777ecce27fd3b931bd47417a81e538327af927da3e
- **os_hash_value**: c8f3e1357eeb8bdf1542850d86d8007d620e4050b5715d0a921d36ee9ce47d0d13c5d85f2b0ff831d4d777ecce27fd3b931bd47417a81e538327af927da3e
- **os_require_quiesce**: yes
- **Tags**: locations: ["url":"/db://3db7b11-6b19-477b-b947-02d735c745c5/images/affb1b5c-ed90-4b26-a60-99fd1e28ca2a/snap","metadata"]
- **hw_qemu_guest_agent**: yes
- **block_device_mapping**: 
  
- **os_hidden**: false
Dashboard – Terminate instance