Infraestrutura Nacional de Computação Distribuída

Treino Openstack GUI

helpdesk@incd.pt

http://www.incd.pt

Dashboard - Entrar
https://nimbus.ncg.ingrid.pt/dashboard

Como entrar (fazer Login)

https://nimbus.ncg.ingrid.pt/dashboard

Username: <o seu e-mail>
Password: <peça-nos para ativar>

Dashboard – Visão global
https://nimbus.ncg.ingrid.pt/dashboard

O seu projeto
(tenant/project)

Settings
para mudar a
password

Não há instâncias a correr (por
enquanto)

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Dashboard – mudar a password
https://nimbus.ncg.ingrid.pt/dashboard

Para mudar a password

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Dashboard – ver imagens disponíveis

https://nimbus.ncg.ingrid.pt/dashboard

Imagens (images & snapshots)

Nomes das imagens disponíveis

Dashboard – Lançar uma instância

https://nimbus.ncg.ingrid.pt/dashboard

Lançar (instânciar) uma imagem

Lançar uma instância - Detalhes
https://nimbus.ncg.ingrid.pt/dashboard

Lançar uma instância - Autenticação
https://nimbus.ncg.ingrid.pt/dashboard

Launch Instance ✕

| Details * | Access & Security * | Networking * | Post-Creation |

Keypair

david [+]

Chave pública ssh
(para já é opcional)

Control access to your instance via keypairs, security groups, and other mechanisms.

Admin Pass

••••••••••

Password da root
da instância

Confirm Admin Pass

••••••••••

Security Groups *
☑ default

Cancel   Launch

Para poder entrar na instância (VM) usando "ssh" é necessário
adicionar uma chave "ssh" pública.

Lançar uma instância – Rede privada

Launch Instance

Details *   Access & Security *   Networking *   Post-Creation
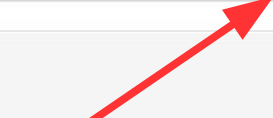
Selected Networks
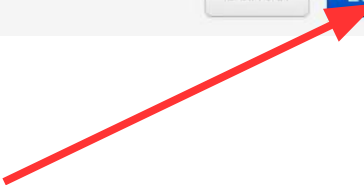
nic:1   lnec_private_net (7b4ae489-a799-4eed-a992-9b6b9d6da1c8)

Available networks

Choose network from Available networks to Selected Networks by push button or drag and drop, you may change nic order by drag and drop as well.

Cancel   Launch

Selecionar uma rede,
para já vamos usar apenas
endereços IP privados

Lançar a instância

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Dashboard - Instâncias
https://nimbus.ncg.ingrid.pt/dashboard

Instância em preparação
- spawning

Dashboard - Instâncias

Instância ativa -
running

Dashboard – Topologia da rede
https://nimbus.ncg.ingrid.pt/dashboard

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Dashboard – Estado da instância
https://nimbus.ncg.ingrid.pt/dashboard

Dashboard – Consola da instância

Acesso à consola da VM

Clicar na barra para ativar a consola

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Consola – Fazer login
https://nimbus.ncg.ingrid.pt/dashboard

Login user: root + passwd: <a password que foi dada na instânciação>

Dashboard – Volumes
https://nimbus.ncg.ingrid.pt/dashboard

Criar volume

A criação de volumes permite adicionar
espaço de armazenamento a uma instância.

Volumes

Dashboard – Criar um volume

https://nimbus.ncg.ingrid.pt/dashboard

Nome do volume

Tamanho do volume em GB (mínimo 1)

Create Volume

Volume Name *
david-volume

Description
Additional information here...

Type

Size (GB) *
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Volume Source
No source, empty volume.

Description:
Volumes are block devices that can be attached to instances.

Volume Limits
Total Gigabytes (0 GB)   1,000 GB Available

Number of Volumes (0)   10 Available

Cancel   Create Volume

Criar volume

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Dashboard – Volumes

https://nimbus.ncg.ingrid.pt/dashboard

Associar volume à instância

Volume acabado de criar

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Dashboard – Associar um Volume

Manage Volume Attachments ✕

Attachments

Instance	Device	Actions
No items to display.		

Displaying 0 items

Selecionar a instância à qual se pretense associar o volume (attach)

Attach To Instance

Attach to Instance *

david-test (e47b7fa4-5630-4192-8039-d1837a52c ▼)

Cancel   Attach Volume

Associar o volume

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Consola – Ver volumes associados

Antes de associar o volume

```
root@david-test:~# cat /proc/partitions
major minor  #blocks  name

  253       0   20971520 vda
  253       1    9436160 vda1
  253       2          1 vda2
  253       5    1046528 vda5
root@david-test:~# _
```

Depois de associar o volume
Novo dispositivo /dev/vdb

```
root@david-test:~# cat /proc/partitions
major minor  #blocks  name

  253       0   20971520 vda
  253       1    9436160 vda1
  253       2          1 vda2
  253       5    1046528 vda5
  253      16   20971520 vdb
root@david-test:~# _
```

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Dashboard – Criar um snapshot
https://nimbus.ncg.ingrid.pt/dashboard

Primeiro parar a instância com Shutoff
• Instances -> Actions -> More -> Shut Off Instance

Criar snapshot

Instances

	Instance Name	Image Name	IP Address	Size	Keypair	Status	Task	Power State	Uptime	Actions
☐	david-lnec	centos7-lnec	192.168.100.2 192.92.149.136	m1.small | 2GB RAM | 1 VCPU | 20.0GB Disk	david	Shutoff	None	Shutdown	4 hours, 11 minutes	Start Instance | More ▾
☐	david	centos7-kbd-pt	192.168.100.4	m1.small | 2GB RAM | 1 VCPU | 20.0GB Disk	david	Shutoff	None	Shutdown	21 hours, 35 minutes	Start Instance | More ▾

Displaying 2 items

Filter | Filter | + Launch Instance | Soft Reboot Instances | 🗑 Terminate Instances

Create Snapshot
Associate Floating IP
Disassociate Floating IP
Edit Instance
Resize Instance
Soft Reboot Instance
Hard Reboot Instance
Rebuild Instance
Terminate Instance

Dashboard – Criar um snapshot

https://nimbus.ncg.ingrid.pt/dashboard

Nome do Snapshot

Create Snapshot   ✕

Snapshot Name *

centos7-LNECUseCases

Description:
Snapshots preserve the disk state of a running instance.

Cancel   Create Snapshot

Criar o Snapshot

Dashboard – Associar IP público

Necessário para poder aceder à VM remotamente (ex. Através de "ssh")
ou para expor outros serviços ao exterior

Instances

	Instance Name	Image Name	IP Address	Size	Keypair	Status	Task	Power State	Uptime	Actions
☐	LNECUseCases	centos7-LNECUseCases		m1.small | 2GB RAM | 1 VCPU | 20.0GB Disk	david	Build	Spawning	No State	0 minutes	Associate Floating IP More ▼
☐	david-lnec	centos7-lnec	192.168.100.2 192.92.149.136	m1.small | 2GB RAM | 1 VCPU | 20.0GB Disk	david	Shutoff	None	Shutdown	4 hours, 16 minutes	Start Instance More ▼
☐	david	centos7-kbd-pt	192.168.100.4	m1.small | 2GB RAM | 1 VCPU | 20.0GB Disk	david	Shutoff	None	Shutdown	21 hours, 41 minutes	Start Instance More ▼

Displaying 3 items

Associar IP flutuante (floating IP)
Um IP flutuante é um IP público

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Dashboard – Associar IP público

Manage Floating IP Associations ✕

IP Address *

IP Address *

No IP addresses available [+]

Select the IP address you wish to associate with the selected instance.

Port to be associated *

LNECUseCases: 192.168.100.5 ▼

Cancel   Associate

Adicionar IP flutuante

Allocate Floating IP ✕

Pool *

public_net ▼

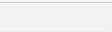**Description:**

Allocate a floating IP from a given floating IP pool.

Project Quotas

Floating IP (1)   49 Available

Cancel   Allocate IP

Alocar novo endereço IP

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Dashboard – Associar IP público

Endereço IP privado alocado
na instânciação   (private IP)

Instances

	Instance Name	Image Name	IP Address	Size	Keypair	Status	Task	Power State	Uptime	Actions
☐	LNECUseCases	centos7-LNECUseCases	192.168.100.5 192.92.149.137	m1.small | 2GB RAM | 1 VCPU | 20.0GB Disk	david	Active	None	Running	2 minutes	Create Snapshot More ▾

Endereço IP público agora
associado (floating IP)
O mapeamento do endereço
público no endereço privado é
feito via NAT

```
$ ssh root@192.92.149.137
Please login as the user "centos" rather than the user "root".
```

Fazer
...
```
$ ssh centos@192.92.149.137
[centos@lnecusecases ~]$ _
```

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Dashboard – Parar vs destruir
https://nimbus.ncg.ingrid.pt/dashboard

Shutoff instance == shutdown -h now

Terminate instance == deletes the instance

Infraestrutura Nacional de Computação Distribuída

Obrigado !

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