

How to create a virtual instance

Objectives

- What is a virtual instance?
- Create a virtual instance

What is virtual instance?

Virtual networks are populated with virtual instances, also called virtual machines. A virtual instance is a simulation of a physical machine, such as a workstation or a server that runs on a host that supports virtualization. Many virtual machines can run on the same host, sharing its resources.



A selection of the number of cores, amount of RAM and HDD Size is called a flavour. Wingu have predefined flavours from which you can select.

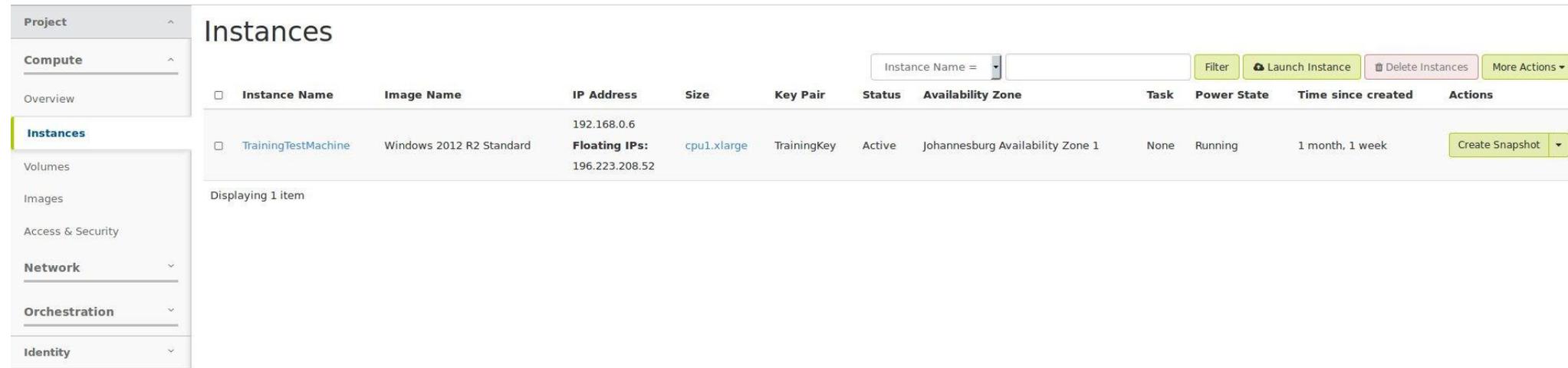


You can select which operating system you wish to deploy to these virtual instances, like Windows Server 2016, Ubuntu Linux and other.

How to create a virtual

To create a virtual instance, you need to log into the Cloud dashboard.

Then click on the **Compute** dropdown menu on the left hand side of the screen, then select the **Instances** item.



Instances

Instance Name = Filter Launch Instance Delete Instances More Actions

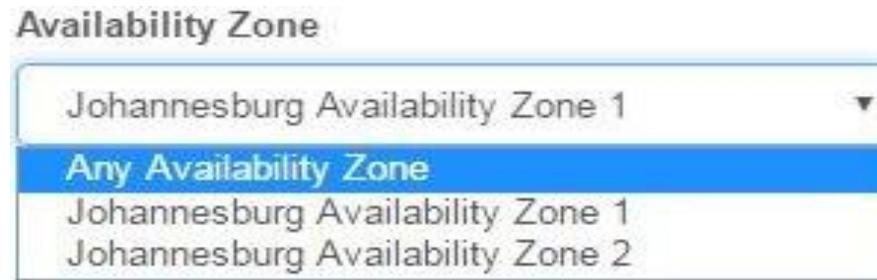
<input type="checkbox"/>	Instance Name	Image Name	IP Address	Size	Key Pair	Status	Availability Zone	Task	Power State	Time since created	Actions
<input type="checkbox"/>	TrainingTestMachine	Windows 2012 R2 Standard	192.168.0.6 Floating IPs: 196.223.208.52	cpu1.xlarge	TrainingKey	Active	Johannesburg Availability Zone 1	None	Running	1 month, 1 week	Create Snapshot

Displaying 1 item

Create a virtual instance.



The **Availability Zone** dropdown menu gives you a selection of where you want your virtual instance to live. Wingu will add zones in the future as our locations grow.



Any Availability Zone: Let the compute manager decide where to start your virtual instance. The compute node with the least load in the platform will be selected.

Johannesburg Availability Zone 1: This will force the virtual instance to live on a specified group of compute nodes linked as Zone 1

Johannesburg Availability Zone 2: This will force the virtual instance to live on a specified group of compute nodes linked as Zone 2

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The **Source** tab allows you to select source of the operating system for your virtual instances.

Launch Instance [X]

Details *
Source
Flavor *
Networks
Network Ports
Security Groups
Key Pair
Configuration
Metadata

Instance source is the template used to create an instance. You can use a snapshot of an existing instance, an image, or a volume (if enabled). You can also choose to use persistent storage by creating a new volume. [?]

Select Boot Source: Image [v]
Create New Volume: Yes No

Allocated

Name	Updated	Size	Type	Visibility	
> Ubuntu 16.04 (Xenial)	1/23/17 3:57 PM	300.69 MB	QCOW2	Public	-

▼ Available 10 [10] Select one

Q Click here for filters.

Name ^	Updated	Size	Type	Visibility	
▼ CentOS 6	1/23/17 3:54 PM	713.69 MB	QCOW2	Public	+
Min Disk	Min RAM				
10	512				
> CentOS 7	1/23/17 3:55 PM	856.63 MB	QCOW2	Public	+
> FreeBSD 11.0	1/23/17 3:56 PM	431.94 MB	QCOW2	Public	+
> Ubuntu 14.04 (Trusty)	1/23/17 3:56 PM	249.88 MB	QCOW2	Public	+
> Windows 2012 R2 Standard	1/24/17 8:02 AM	6.38 GB	QCOW2	Public	+
Windows 2012 R2 Standard with SQL Server 2014 install	2/13/17 7:21	6.34 GB	QCOW2	Public	+

Expand different sources to see the **Source Details**.

Click the **+** to chose the source image of your instance.

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Instance Boot Source * ?



The **Select Boot Source** dropdown menu allows you to select the source from where you will get your Operating System image.

Boot from image will enable the **Select Image** dropdown menu, where you can select an operating system from.

Boot from snapshot will display the **Instance Snapshot** dropdown menu, where you can select the name of previously created snapshots

Boot from Volume enables you to select a previously created volume to boot from.

Boot from image (creates a new volume) will boot the selected operating system, while creating a new volume as specified in the provided fields.

Boot from volume snapshot (creates a new volume) will boot from the selected snapshot, while creating a new volume

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After configuring the security groups, we need to setup the security for the instance. Click the **Access & Security** tab to the left on the menu.

The screenshot shows the 'Launch Instance' dialog box with the 'Flavor' tab selected. It displays two lists of options: 'Allocated' and 'Available'. The 'Allocated' list shows a single flavor 'gen1.nano' with 1 VCPU, 512 MB RAM, and 20 GB Total Disk. The 'Available' list shows several flavors including 'gen1.micro', 'gen1.small', 'gen1.medium', 'gen1.large', and 'cpu1.xlarge'. Below the 'Available' list, there is a section titled 'Impact on your quota' with three circular progress indicators for Total Instances (13 Max), Total VCPUs (23 Max), and Total RAM (51205 Max). Each indicator shows current usage, added, and remaining values.

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public
gen1.nano	1	512 MB	20 GB	20 GB	0 GB	Yes

Name	VCPUS	RAM	Total Disk	Root Disk	Ephemeral Disk	Public
gen1.micro	1	1 GB	20 GB	20 GB	0 GB	Yes
gen1.small	1	2 GB	50 GB	50 GB	0 GB	Yes
gen1.medium	2	4 GB	50 GB	50 GB	0 GB	Yes
gen1.large	2	8 GB	100 GB	100 GB	0 GB	Yes
cpu1.xlarge	4	8 GB	100 GB	100 GB	0 GB	Yes

Here you will see two lists.

The **Allocated keypair** list indicates the key pairs which will have access to remote into the instance.

While the **Available groups** list will indicate all available key pairs.

Click the **+** button to the right of the key pair from the available list to add it as a allocated list on this instance.

Create a virtual instance.

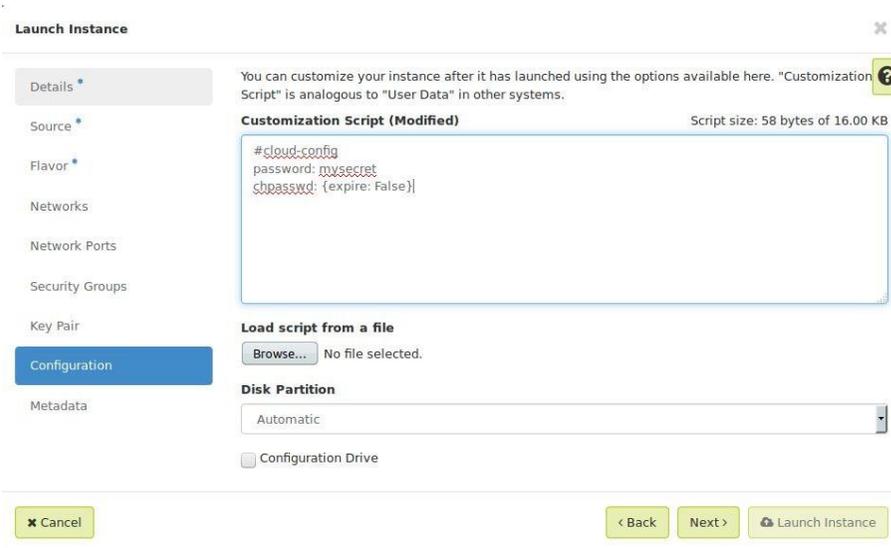


A very handy tool is the post creation scripting function. You can run scripts specified here after the instance has spawned. This will allow you to create passwords, or setup some configuration files before actually accessing the virtual instance's terminal. Click the **Configuration** tab to the left on the menu.

The **Customization Script** field provides an area where you can define your custom script which will be injected into your instance on first start up.

Select the **Browse** option from **Load script from a file** section to load a script file.

Note: If you want to be able to log into the Ubuntu instance console, you need this script to get access with the ubuntu user and password defined with the script.



```
#cloud-config
password: mysecret
chpasswd: {expire: False}
```

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All done. Now click the **Launch** button on the bottom right hand of the popup screen to create your virtual instance.

A screenshot of the Google Cloud Platform 'Instances' page. On the left is a navigation sidebar with categories: Project, Compute, Overview, Instances (highlighted), Volumes, Images, Access & Security, Network, Orchestration, and Identity. The main content area is titled 'Instances' and includes a search bar for 'Instance Name', a 'Filter' button, and action buttons for 'Launch Instance', 'Delete Instances', and 'More Actions'. Below this is a table with columns: Instance Name, Image Name, IP Address, Size, Key Pair, Status, Availability Zone, Task, Power State, Time since created, and Actions. One instance is listed: 'TrainingTestMachine' with image 'Windows 2012 R2 Standard', size 'cpu1.xlarge', key pair 'TrainingKey', status 'Active', and power state 'Running'. The 'Actions' column for this instance contains a 'Create Snapshot' button. Below the table, it says 'Displaying 1 item'.

Notice your new instance is displayed in the **Instances** list.

Thank you

For Support log a call at:
support@wingu.co.za