

## ÅBO AKADEMI UNIVERSITY

#### CLOUD COMPUTING

### Assignment 1



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# Launching a instance of a virtual machine

The first step to launch a instance of a virtual machine, at the AWS services, is actually **choosing witch Amazon Machine Image** (template that contains the software configuration required to launch your instance) we want to use. For the assignment we are going to choose the Amazon Linux 2 AMI (HVM).



Figure 1.1: Amazon Linux 2 AMI (HVM)

After that, we need to **select witch instance type** of the virtual machine we desire. In this case, it was chosen the "t2.micro".

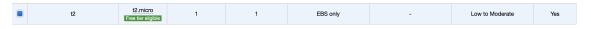


Figure 1.2: Instance Type

Continuing with launch, it is possibly to configure the details of the virtual machine, adding storage, adding tags, and finally configure security group.

Lastly, we can access the virtual machine by running the command  $\frac{ssh - i \text{ "key.pem"}}{ec2 - user@ec2 - 52 - 87 - 230 - 83.compute - 1.amazonaws.com}$ 

```
(base) Desktop » ssh -i "key.pem" ec2-user@ec2-52-87-230-83.compute-1.amazonaws.com
The authenticity of host 'ec2-52-87-230-83.compute-1.amazonaws.com (52.87.230.83)' can't be established.
ECDSA key fingerprint is SHA256:mL8GS/uFsRIfZy2JrqqJjhxR+UeJM3LY29kM8uFZxro.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-52-87-230-83.compute-1.amazonaws.com,52.87.230.83' (ECDSA) to the list of known hosts.

_| __| ___ )
__| ( / Amazon Linux 2 AMI
___|\___| |
```

Figure 1.3: Accessing the VM

### Information about the VM

By using the command *vi /proc/cpuinfo* it is possible to identify the following:

- What is the model name of your CPUs? Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
- What is the cache size? 30720 KB
- What is the clock frequency of your CPU(s)? 2400.096 MHz
- What is the CPU vendor? GenuineIntel

```
processor : 0
vendor_id : GenuineIntel
cpu family : 6
model : 63
model name : Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz
stepping : 2
microcode : 9*44
cache size : 30720 KB
physical id : 0
substings : 1
core id : 0
core id : 0
core id : 0
initial apicid : 0
substings : 1
apicid : 0
substings : 1
apicid : 0
initial apicid : 0
cpu ores : 1
apicid | 0
initial apicid : 0
cpu ores : 1
apicid | 0
cpu ores : 1
apicid | 0
cpu ores : 1
apicid : 0
core id : 0
```

Figure 2.1: Virtual Machine Information

And by using the command  $sudo\ dmidecode\ |\ grep-i\ -e\ vendor$  we find out:

• What is the name of the hypervisor vendor? Xen

```
[ec2-user@ip-172-31-55-133 ~]$ sudo dmidecode | grep -i -e manufacturer -e product -e vendor

Vendor: Xen

Manufacturer: Xen

Product Name: HVM domU

Manufacturer: Xen

Manufacturer: Intel

Manufacturer: Not Specified
```

Figure 2.2: Virtual Machine Information

## Report

• What would happen if you lose the private key provided when you instantiated your VM?

It is informed, when launching the instance of a virtual machine, that if the key gets lost there will be not possible way to log into the instance created.

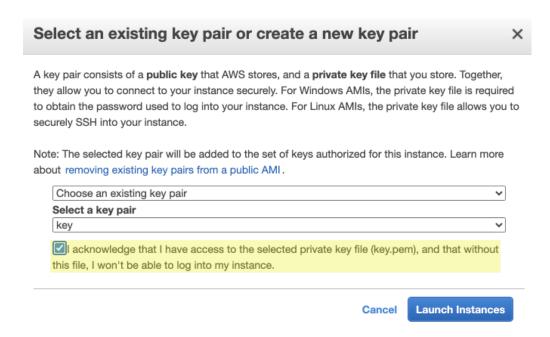


Figure 3.1: Key information

• Do you have any idea where was the physical server on which your VM was running?

By searching about the server information in the AWS Management Console, it is possible to know that the servers region is located in the US East (N.Virginia)

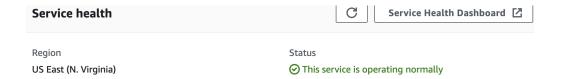


Figure 3.2: Server information

• How long was the "waiting time" (approximately) between requesting a VM and having it up and running?

The "waiting time" between requesting a VM and having it up and running was roughly 25 seconds.

• Content of your log.dat file.

After exiting the virtual machine and running the command  $\frac{scp - i \text{ "key.pem" ec2} - user@}{ec2 - 54 - 174 - 108 - 65.compute - 1.amazonaws.com : /home/ec2 - user/log.dat}$  we obtain a file named "log.dat" that, in its content is the following information:

## Conclusion

Concluding the assignment, and reviewing what was practiced, we can see how simple is to launch a virtual machine remotely, from the other side of the world. It was particularly satisfying to connect a remote machine to a local one, in this case, coping the "log.dat" file into my personal machine