

PRÁCTICAS DE LABORATORIO

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Decimoséptimo laboratorio
(261):

Direcciones IP Públicas y
Privadas



Instructor:
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TAREA 1:



En esta tarea fuimos colocados en un escenario en el cual un cliente necesitaba ayuda porque había ocurrido un problema de red en su infraestructura de AWS. Él nos mandaba un mail explicando la situación de que dos instancias que tenían la misma configuración de Subnet y de AWS, la instancia A no podía conectarse a Internet y la instancia B sí.

- 1-Se nos pide investigar el entorno del cliente para buscar posibles fallas.
- 2-Entramos a el apartado de instancias de EC2 que tenía abiertas el cliente.
- 3-Copiamos la dirección de IP Pública y privada de la instancia A y la instancia B, sin embargo al hacer esto notamos que **la instancia A no tiene dirección de IP pública.**

Esto era lo que generaba que la instancia no pudiese conectarse a internet ya que la instancia necesita una dirección de IP publica para poder conectarnos a través de internet.

Así se veían la instancia A:

The screenshot displays the AWS Management Console interface for the EC2 service. The left sidebar shows the navigation menu with 'Instances' selected. The main content area shows a list of instances, with 'instance A' (ID: i-0077ea4eaf10d6272) highlighted. Below the list, the details for 'Instance: i-0077ea4eaf10d6272 (instance A)' are displayed. The 'Public IPv4 address' field is circled in red.

Instances (1/2)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
instance B	i-03205258fcde82b3c	Running	t3.micro	2/2 checks passed	No alarms	us-west-2a
instance A	i-0077ea4eaf10d6272	Running	t3.micro	2/2 checks passed	No alarms	us-west-2a

Instance: i-0077ea4eaf10d6272 (instance A)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0077ea4eaf10d6272 (instance A)	-	10.0.10.242
IPv6 address	Instance state	Public IPv4 DNS
-	Running	-

Así se veían la instancia B:

The screenshot displays the AWS Management Console interface. On the left, the navigation menu includes 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', and 'Elastic Block Store'. The 'Instances' section is selected, showing a list of two instances: 'instance B' (ID: i-03205258fcde82b3c) and 'instance A' (ID: i-0077ea4eaf10d6272). Both are in a 'Running' state. Below the list, the details for 'Instance: i-03205258fcde82b3c (instance B)' are shown. The 'Details' tab is active, displaying the 'Instance summary' section. A tooltip indicates that the 'Public IPv4 address' has been copied. The summary includes the Instance ID, IPv4 address (34.216.72.239), Private IPv4 address (10.0.10.16), and Public IPv4 DNS. The instance is also shown as 'Running'.

Instances (1/2) Info

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
instance B	i-03205258fcde82b3c	Running	t3.micro	2/2 checks passed	No alarms	us-west-2a
instance A	i-0077ea4eaf10d6272	Running	t3.micro	2/2 checks passed	No alarms	us-west-2a

Instance: i-03205258fcde82b3c (instance B)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary Info

Instance ID
i-03205258fcde82b3c (instance B)

IPv4 address
34.216.72.239 | open address

Private IPv4 addresses
10.0.10.16

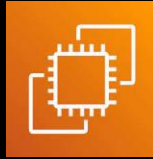
Public IPv4 DNS
-

Running

Copy public IPv4 address to clipboard

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TAREA 2:



En esta tarea teníamos que conectarnos a través putty (SSH) a las dos instancias EC2, a la instancia B pudimos acceder correctamente gracias a que teníamos la IP pública, pero como en la instancia A solo teníamos la IP privada, esta no nos permitió conectar correctamente con la instancia A.

Las direcciones IP privadas se utilizan dentro de la VPC y no pueden establecer una conexión a Internet.

Así que en conclusión las IP privadas no te permiten conectar a las instancias a través de internet y putty (SSH) necesitas la IP pública para poder acceder.

Aquí podemos observar la instancia A sin poder conectar correctamente porque no tenemos la IP pública.

The screenshot displays the AWS Management Console interface for EC2 instances. On the left, the navigation menu includes 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances', 'Dedicated Hosts', 'Capacity Reservations', 'Images', and 'Elastic Block Store'. The 'Instances' section is selected, showing a list of two instances: 'instance B' and 'instance A'. 'instance A' is highlighted with a red arrow. Below the list, the details for 'Instance: i-0077ea4eaf10d6272 (instance A)' are shown, including the 'Instance summary' tab. The summary shows the Instance ID as 'i-0077ea4eaf10d6272 (instance A)', the Instance state as 'Running', and the Public IPv4 address as '-'. A red line is drawn under the public IP address field. On the right, the 'PuTTY Configuration' window is open, showing the 'Basic options for your PuTTY session' tab. The 'Host Name (or IP address)' field is empty, and the 'Port' is set to '22'. The 'Connection type' is set to 'SSH'. The 'Close window on exit' option is set to 'Only on clean exit'. The 'Open' button is highlighted.

Instances (1/2) Info

Name	Instance ID	Instance state	Instance type
instance B	i-03205258fcde82b3c	Running	t3.micro
instance A	i-0077ea4eaf10d6272	Running	t3.micro

Instance: i-0077ea4eaf10d6272 (instance A)

Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0077ea4eaf10d6272 (instance A)	-	10.0.10.242

PuTTY Configuration

Category: Session, Logging, Terminal, Keyboard, Bell, Features, Window, Appearance, Behaviour, Translation, Selection, Colours, Connection, Data, Proxy, SSH, Kex, Host keys, Cipher, Auth, Credentials.

Basic options for your PuTTY session

Specify the destination you want to connect to

Host Name (or IP address): Port: 22

Connection type: ☒ SSH ☐ Serial ☐ Other: Telnet

Load, save or delete a stored session

Saved Sessions:

Default Settings:

Close window on exit: ☐ Always ☐ Never ☒ Only on clean exit


Buttons: About, Help, Open, Cancel

TAREA 3:



En esta tarea teníamos que hablar con un compañero y que uno de nosotros sea el cliente y el otro el asistente de la nube, para discutir acerca de lo que había pasado y explicar lo de las IP pública y privada y por qué una de las instancias no funcionaba.





Aquí termina el
laboratorio, muchas
gracias