

Lesson 05 Demo 11

Creating a Global Accelerator

Objective: To create a Global Accelerator on AWS, that enhances the availability and performance of your applications by intelligently routing traffic across multiple regions and endpoints

Tools required: AWS workspace

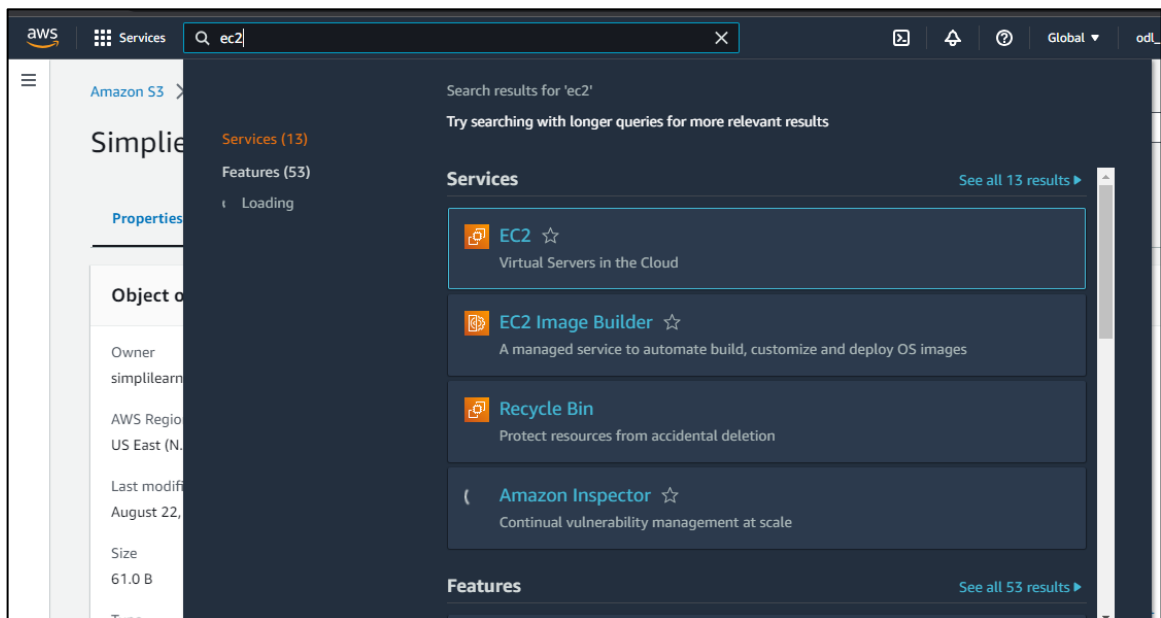
Prerequisites: One EC2 instance should be created

Steps to be followed:

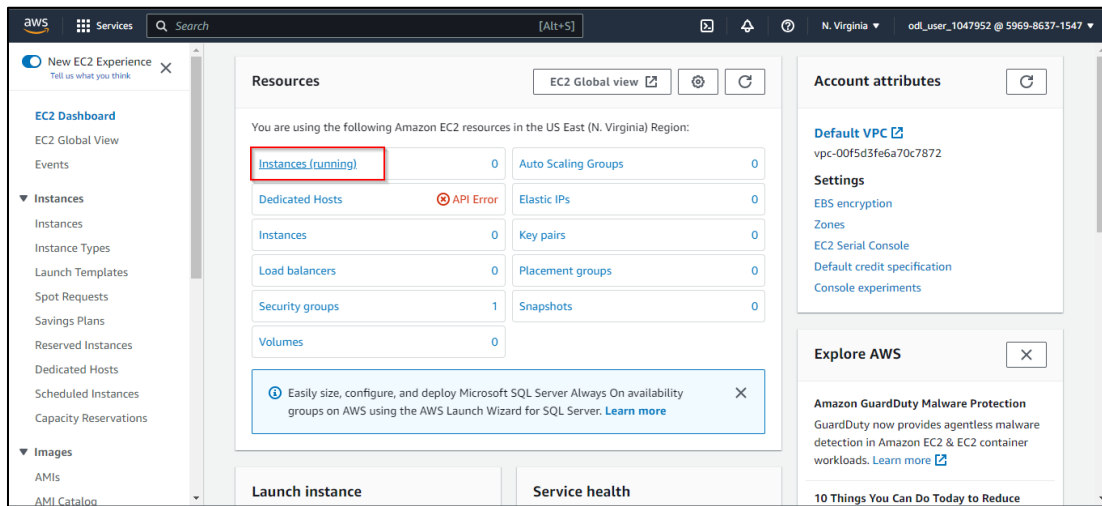
1. Create an EC2 web instance
2. Create a Global Accelerator

Step 1: Create an EC2 web instance

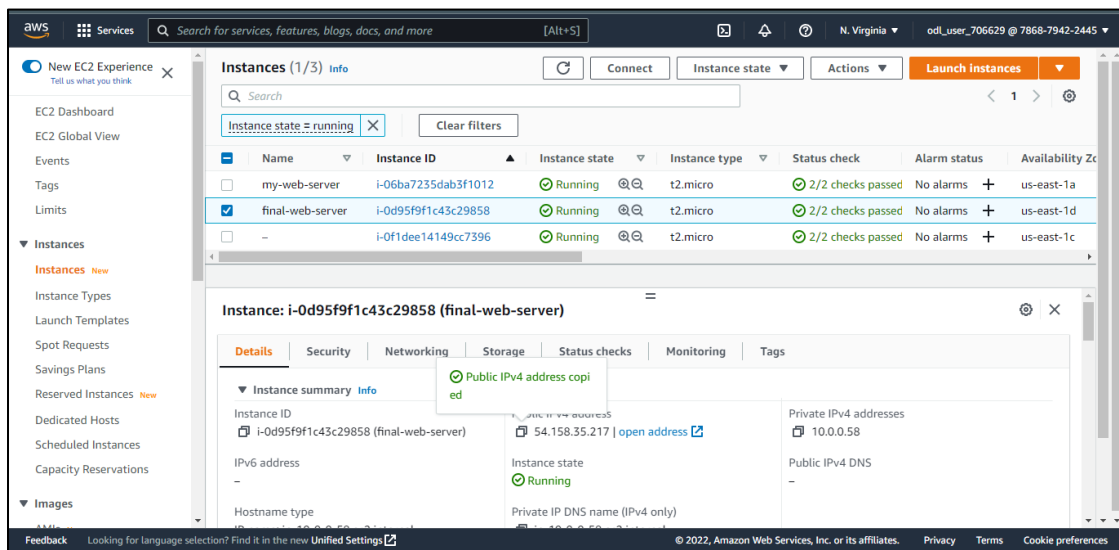
- 1.1 Navigate to the AWS portal home screen, search for and select **EC2**



1.2 Click on instances(running)

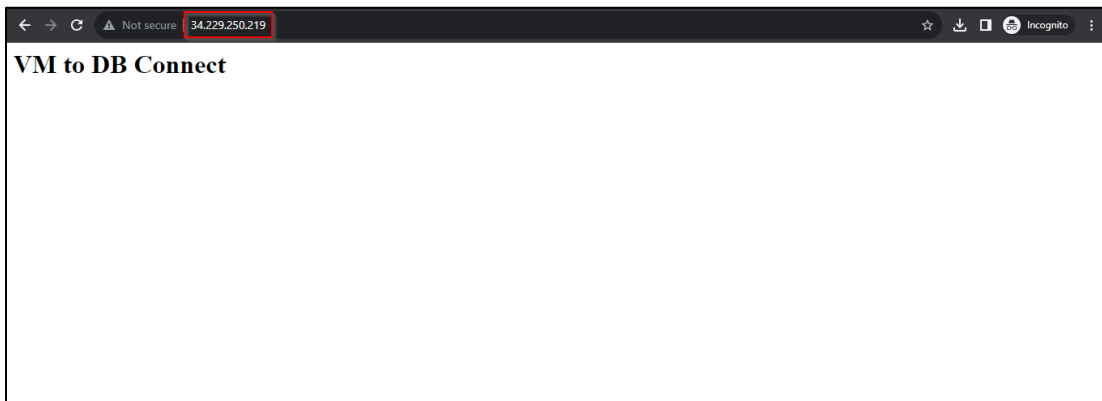


1.3 Click on the instance with the website and copy the IPv4 address



Note: Refer to the **Lesson 03 Demo 05** to know how to create EC2 web instance

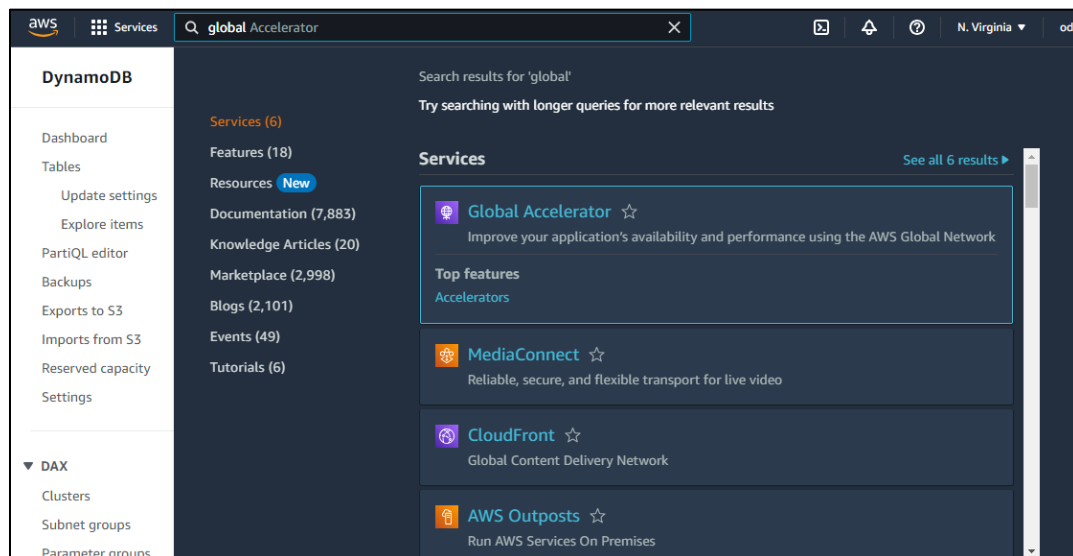
1.4 Open a new browser, paste the **IPv4 address** and press enter



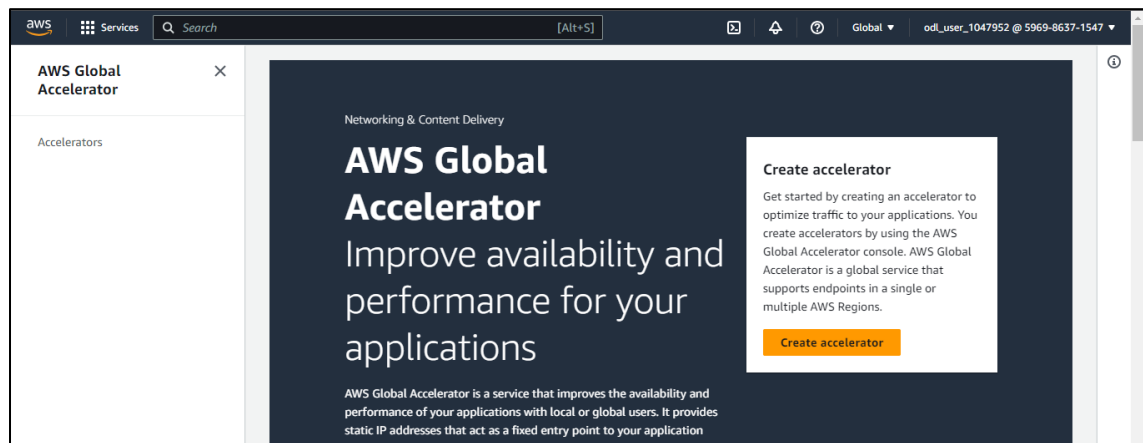
Note: This is required for creating a Global Accelerator.

Step 2: Create a Global Accelerator

2.1 Navigate to the AWS portal home screen, search for and select **Global Accelerator**



2.2 Click on **Create accelerator**



2.3 Provide a name for the accelerator and click **Next**

The screenshot shows the 'Create accelerator' wizard form. It has several sections:

- Accelerator name:** A text input field with 'myaccelerator' entered. A red box highlights the input. Below it, a note says 'Enter only letters, numbers, or hyphens (-), with no spaces.'
- Accelerator type:** Two radio button options:
 - Standard:** Selected with a blue radio button. Description: 'Automatically route traffic to a healthy endpoint that's nearest to your user'.
 - Custom routing:** Unselected with a grey radio button. Description: 'Route multiple users to specific EC2 instance destinations in VPC subnets'.
- IP address type:** A dropdown menu showing 'IPV4'.
- IP address pool selection:** A section with a right-pointing arrow and a horizontal line below it.
- Tags:** A section with a right-pointing arrow and a horizontal line below it.

 At the bottom right, there are two buttons: 'Cancel' and 'Next' (highlighted in orange).

2.4 Enter **80** under the **Ports** section, choose **TCP** under **Protocol**, and proceed by clicking **Next**

Listeners

You designate a listener by choosing a specific port or port range to listen on.

Ports	Protocol	Client affinity	
80	TCP	NONE	Remove

Use commas to separate port numbers or ranges.

Add listener

Cancel Previous **Next**

2.5 Select region as **us-east-1**, click on **Next**

Endpoint groups

Listeners that direct traffic to one or more endpoint groups. An endpoint group can include endpoints that are attached to one or more accelerators.

Each endpoint group can only include endpoints that are attached to one or more accelerators, but until you do, traffic to this listener is routed to the endpoints that are attached to the accelerator.

us-east-1 (selected)

us-east-2 (US EAST (Ohio) Region)

us-west-1 (US WEST (N. California) Region)

us-west-2 (US WEST (Oregon) Region)

af-south-1 (Africa (Cape Town))

ap-east-1 (Asia Pacific (Hong Kong))

Configure port overrides

Configure health checks

Add endpoint group

Cancel Previous **Next**

2.6 Click on **Add endpoint**

The screenshot shows the AWS Global Accelerator console. On the left, there's a sidebar with 'AWS Global Accelerator' and 'Accelerators'. The main area is titled 'Add endpoint groups' and 'Step 4: Add endpoints'. It shows a listener for '80 TCP' and an endpoint group 'us-east-1' with a traffic dial of 100%. There are three columns: 'Endpoint type', 'Endpoint', and 'Weight'. The 'Endpoint type' dropdown is currently empty. The 'Endpoint' field is empty. The 'Weight' field is set to '128'. Below these fields, there's a checkbox for 'Preserve client IP address' which is unchecked. At the bottom, there's a red box around the 'Add endpoint' button. Other buttons at the bottom include 'Cancel', 'Previous', and 'Create accelerator'.

2.7 Choose **EC2 instance** as the Endpoint type

This screenshot is similar to the previous one, but the 'Endpoint type' dropdown menu is open, showing a list of options: 'Application Load Balancer', 'Network Load Balancer', 'EC2 instance', and 'Elastic IP address'. The 'EC2 instance' option is highlighted with a red box. The rest of the interface remains the same, including the 'us-east-1' endpoint group and the 'Add endpoint' button.

2.6 Select an endpoint and click on **Create accelerator**

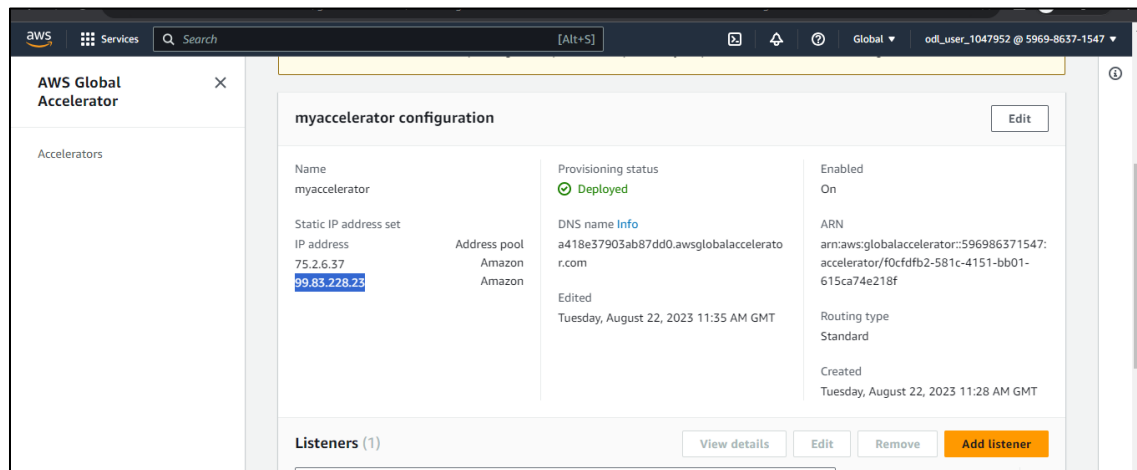
The top screenshot shows the 'Add endpoints' step in the AWS Global Accelerator console. The 'Endpoint type' is set to 'EC2'. The 'Endpoint Info' dropdown is open, showing a list of EC2 instances. The instance 'i-031e8235c1853bdf3' is selected. The 'Weight' is set to 128. The 'Preserve client IP address' checkbox is checked. The 'Add endpoint' button is visible.

The bottom screenshot shows the 'Accelerators' list in the AWS Global Accelerator console. A green notification banner at the top states 'Global Accelerator successfully created the accelerator myaccelerator.' The table below shows the details of the created accelerator:

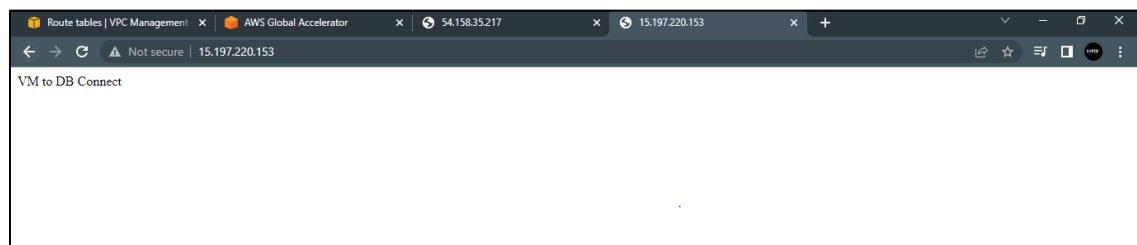
Name	Type	IPv4	IPv6	Enabled	DNS name	Dual stack DNS name
myaccelerator	Standard	75.2.6.37 99.83.228.23		On	a418e37903ab87dd0.awsglobalaccelerator.com	-

The Global Accelerator has been created successfully.

2.7 Copy the IP address



2.8 Paste the IP address in a browser and press enter



By following these steps, you have accomplished the creation and validation of a Global Accelerator, showcasing its capacity to enhance the distribution of applications across different regions. This resource empowers you with the tools to offer superior user experiences, minimize latency, and elevate the availability of applications on a worldwide level.