



Global Accelerator



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AWS Global Accelerator is a service in which you create accelerators to improve availability and performance of your applications for local and global users.

Global Accelerator directs traffic to optimal endpoints over the AWS global network. This improves the availability and performance of your internet applications that are used by a global audience.



By default, Global Accelerator provides you with two static IP addresses that you associate with your accelerator.

Alternatively, you can bring your own.



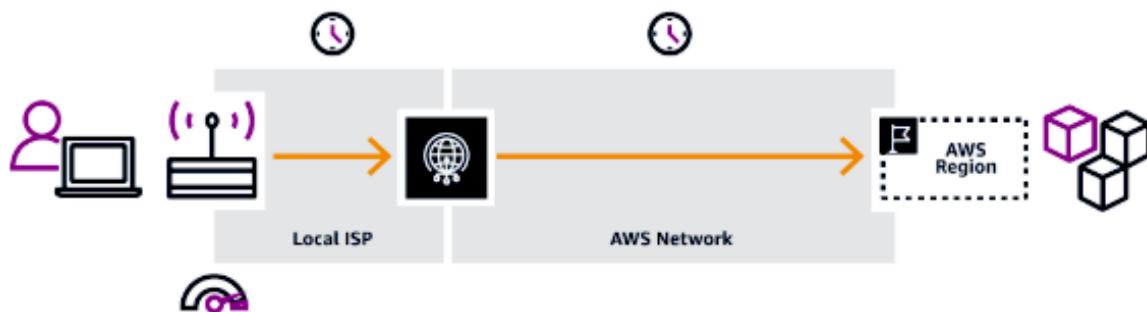
Without AWS Global Accelerator



It can take many networks to reach the application. Paths to and from the application may differ. Each hop impacts performance and can introduce risks.

multiple ISPs

With AWS Global Accelerator



Adding AWS Global Accelerator removes these inefficiencies. It leverages the Global AWS Network, resulting in improved performance.

AWS Global Accelerator includes the following components

- Static IP addresses
- Accelerator
- DNS Name
- Network Zone
- Listener
- Endpoint Group
- Endpoint



Static IP addresses

By default, Global Accelerator provides you with two static IP addresses that you associate with your accelerator.

Or, you can bring your own.

1 1.2.3.4

2 5.6.7.8

Accelerator

An accelerator directs traffic to optimal endpoints over the AWS global network to improve the availability and performance of your internet applications.

Each accelerator includes one or more listeners.



DNS Name

Global Accelerator assigns each accelerator a default Domain Name System (DNS) name - similar to **a1234567890abcdef.awsglobalaccelerator.com** - that points to the static IP addresses that Global Accelerator assigns to you.

Depending on the use case, you can use your accelerator's static IP addresses or DNS name to route traffic to your accelerator, or set up DNS records to route traffic using your own custom domain name.



Network zone

A network zone services the static IP addresses for your accelerator from a unique IP subnet. Similar to an AWS Availability Zone, a network zone is an isolated unit with its own set of physical infrastructure.

When you configure an accelerator, by default, Global Accelerator allocates two IPv4 addresses for it. If one IP address from a network zone becomes unavailable due to IP address blocking by certain client networks, or network disruptions, client applications can retry on the healthy static IP address from the other isolated network zone.



Listener

A listener processes inbound connections from clients to Global Accelerator, based on the port (or port range) and protocol that you configure. Global Accelerator supports both TCP and UDP protocols.

Each listener has one or more endpoint groups associated with it, and traffic is forwarded to endpoints in one of the groups.

You associate endpoint groups with listeners by specifying the Regions that you want to distribute traffic to. Traffic is distributed to optimal endpoints within the endpoint groups associated with a listener.



Endpoint group

Each endpoint group is associated with a specific AWS Region.

Endpoint groups include one or more endpoints in the Region.

You can increase or reduce the percentage of traffic that would be otherwise directed to an endpoint group by adjusting a setting called a traffic dial.

The traffic dial lets you easily do performance testing or blue/green deployment testing for new releases across different AWS Regions, for example.

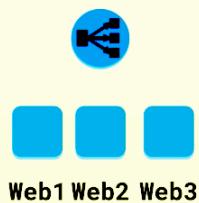


Endpoint

Endpoints can be Network Load Balancers, Application Load Balancers, EC2 instances, or Elastic IP addresses.

An Application Load Balancer endpoint can be an internet-facing or internal. Traffic is routed to endpoints based on configuration options that you choose, such as endpoint weights.

For each endpoint, you can configure weights, which are numbers that you can use to specify the proportion of traffic to route to each one. This can be useful, for example, to do performance testing within a Region.



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Name	Instance ID	Instance Type	Availability Zone	Instance State	Size
i-0abcf6f6e79be6626	t2.micro	us-east-1b	pending		

Created an EC2 instance to use as an endpoint



Networking & Content Delivery

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CloudFront

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API Gateway

Direct Connect

AWS App Mesh

AWS Cloud Map

Global Accelerator

Networking & Content Delivery

AWS Global Accelerator

Improve availability and performance for your applications

AWS Global Accelerator is a service that improves the availability and performance of your applications with local or global users. It provides static IP addresses that act as a fixed entry point to your application endpoints in a single or multiple AWS Regions, and uses the AWS global network to optimize the path from your users to your applications.



Create accelerator

Get started by creating an accelerator to optimize traffic to your applications.

[Create accelerator](#)

Pricing (US)

You pay only for what you use. Charges are on two dimensions: a fixed fee while your accelerator runs and a data-transfer premium fee.

[Learn more](#)

How it works



Basic configuration

To get started with creating your accelerator, provide a name for it.

Accelerator name

Provide a name to associate with your accelerator.

acloudguru

Enter only letters or numbers, with no spaces.

IP address type

IPv4



► IP address pool selection

► Tags

[Cancel](#)

[Next](#)

Listeners

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

Ports Info

80, 443

Use commas to separate port numbers or ranges.

Protocol Info

TCP

Client affinity Info

None

[Remove](#)

[Add listener](#)

Add endpoint groups

An accelerator includes one or more listeners that direct traffic to one or more endpoint groups. An endpoint group includes balancers.

Listener: 80, 443 TCP

Each listener can have multiple endpoint groups. Each endpoint group can only include endpoints that are in one Region. To add an endpoint group, but until you do, traffic to this listener won't reach any endpoints.

Region Info

us-east-1

Traffic dial Info

100

[Remove](#)

A number from 0 to 100.

[▶ Configure health checks](#)

[Add endpoint group](#)

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Add endpoints

Now that you've added one or more endpoint groups, you can add endpoints to each one. If you don't have any endpoints yet, create one in the Elastic Load Balancing (ELB) console or create an EC2 instance. Endpoints must be in the same Region as the endpoint group. You must have the required permissions to view available endpoint resources.

Listener: 80, 443 TCP

AWS Global Accelerator routes traffic that arrives on these ports to endpoints in regional endpoint groups. All endpoints for an endpoint group must be in the same Region.

▼ Endpoint group: us-east-1

Traffic dial: 100%



Endpoint type [Info](#)

EC2 instance

Endpoint [Info](#)

i-0abcf6f6e79be6626

Weight [Info](#)

128

[Remove](#)

A number from 0 to 255.

[Preserve client IP address Info](#)

Global Accelerator preserves the client IP address for internet-facing Application Load Balancers unless you clear the check box to disable this feature. All internal Application Load Balancers and EC2 instances automatically preserve the client IP address. Make sure that your endpoints are configured to accept traffic from the preserved client IP addresses.

Preserve client IP address

[Add endpoint](#)

⌚ Global Accelerator successfully created the accelerator **acloudguru**.

[View details](#) >

AWS Global Accelerator > Accelerators

ⓘ Access AWS Global Accelerator from any AWS Region

Accelerators (1)						View details	Edit	Delete		Create accelerator
Name	Static IP addresses	Enabled	DNS name	Status	Edited					
<input type="radio"/> acloudguru	13.248.214.56, 76.223.71.61	On	aa7dbe342ccb90271.awsglobalaccelerator.com	In progress	Thursday, March 5, 2020 5:21 PM GMT					

Delete the accelerator ?

X

Delete the accelerator permanently? This action cannot be undone. If you proceed with this action, you'll lose the static IP addresses that are assigned to this accelerator, so you can no longer route traffic by using them.

Before you can delete the accelerator, you must disable it. When you disable it, the accelerator no longer accepts or routes traffic.

Accelerator disabled

When the accelerator is disabled, you can delete it. Enter delete in the box, and then choose Delete.

delete

Cancel

Delete

Know what a Global Accelerator is and where you would use it.

- AWS Global Accelerator is a service in which you create accelerators to improve availability and performance of your applications for local and global users.
- You are assigned two static IP addresses (or alternatively you can bring your own).
- You can control traffic using traffic dials. This is done within the endpoint group.

