

DNS load balancing for HA using AWS Route 53

681 Nesvin KN April 22, 2025 [Features & Functionalities](#), [General](#) 1243

How to implement DNS load balancing in [Ezeelogin cluster](#) for high availability (HA)?

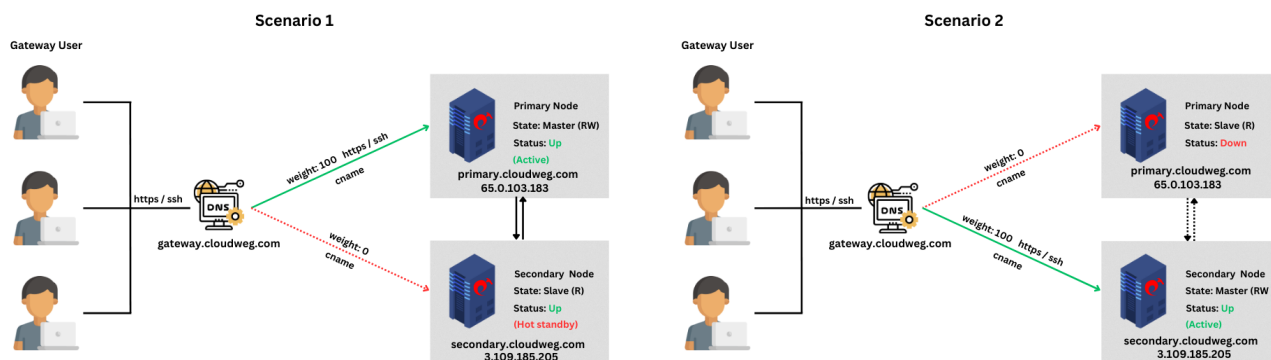
Overview: This article explains how to implement DNS load balancing in an Ezeelogin cluster using AWS Route 53 to achieve high availability (HA), by directing traffic between a primary and a hot-standby secondary node based on DNS weight configuration and health checks.

In the following example we will configure the hostname **gateway.cloudweg.com** to point to the primary node (**primary.cloudweg.com/65.0.103.183**) using weights in the DNS load balancer (Route 53). In the event of failure of the primary node the traffic would be directed to the secondary node (**secondary.cloudweg.com/3.109.185.205**) which is in the hot standby mode.

The node **secondary.cloudweg.com** needs to be switched to the master state to perform read/write operations.

Refer article to [switch the node states](#)

Diagram explaining DNS weight distribution:

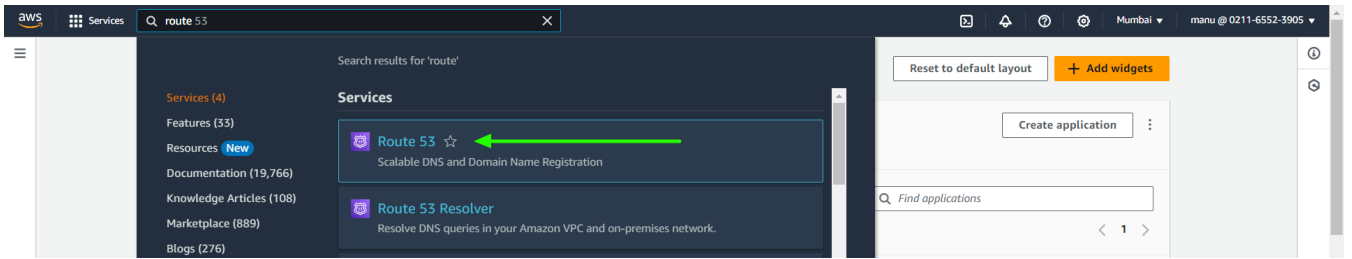


Scenario 1: **Primary node is in active state and secondary is in the hot standby mode.** Traffic is routed to the primary node.

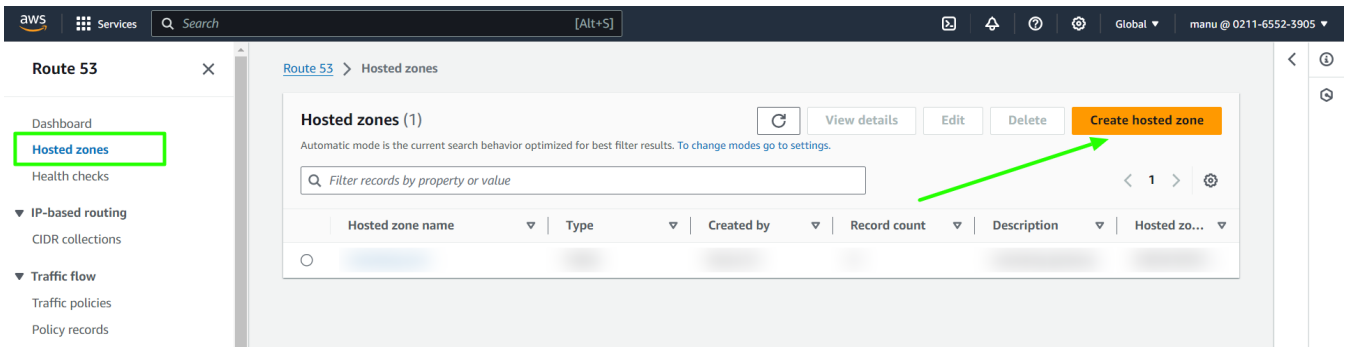
Scenario 2: **Primary node is down and secondary node is in the active state.** Traffic is routed to the secondary node.

Steps to set the DNS in AWS Route 53:

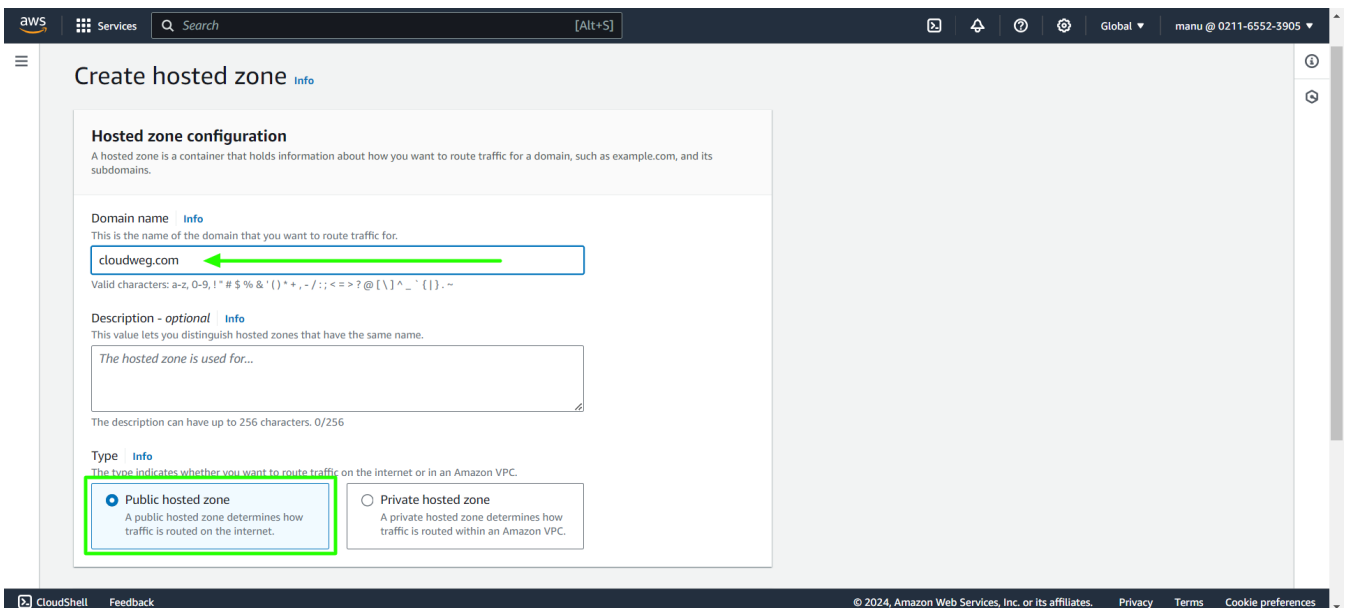
Step 1: Login to **AWS account** and search for **Route 53**.



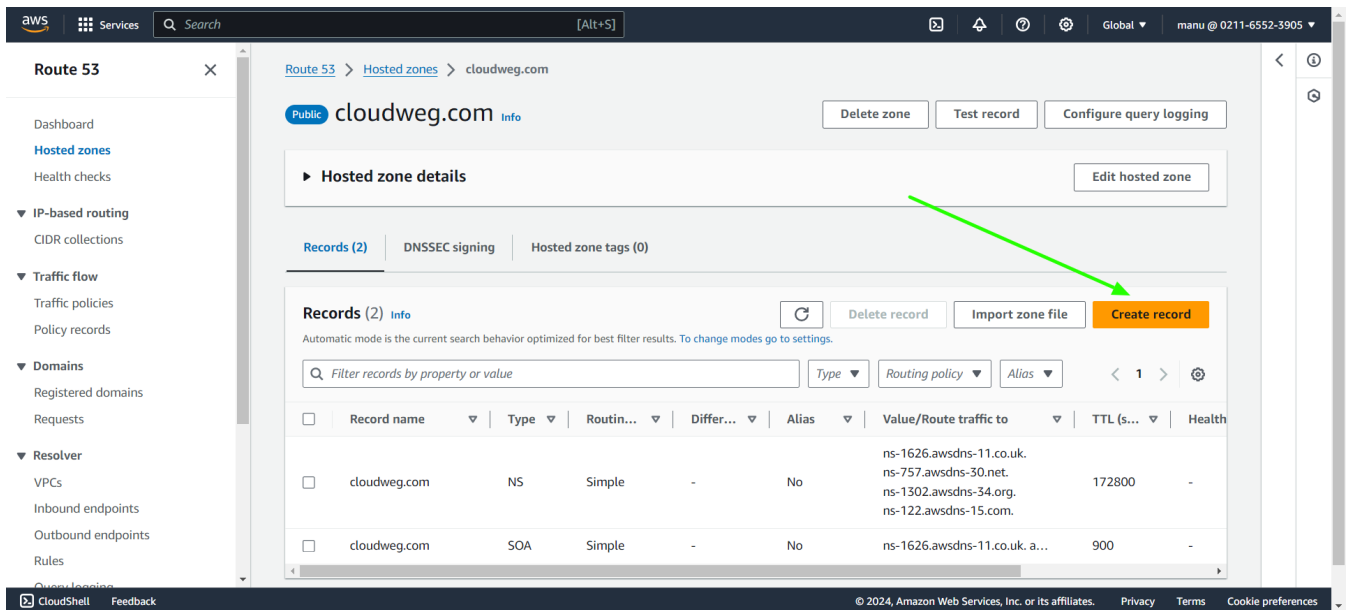
Step 2: Select Hosted zones and create new hosted zone.



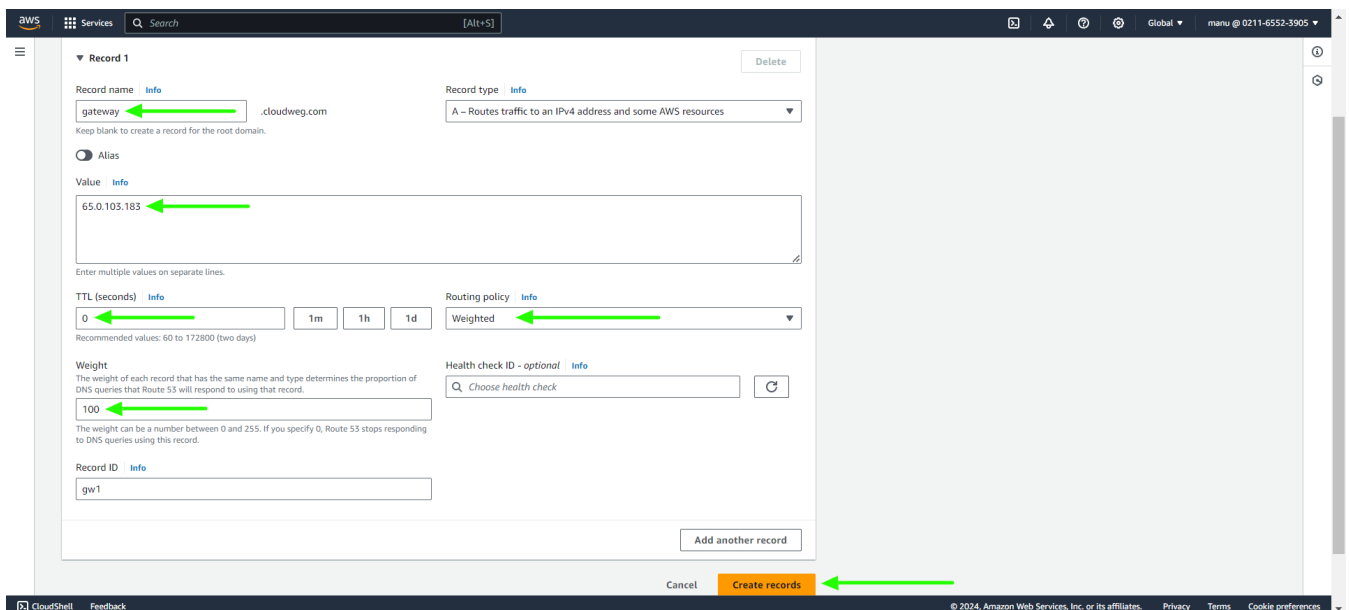
Step 3: Provide domain name in hosted zone configuration and select public hosted zone.



Step 4: Create new record under new domain name created.



Step 5: Provide the name of the record to be used for calling Ezeelogin. Paste the public IP of the primary node, set the TTL seconds to 0, choose the routing policy as weighted with a weight of 100, provide the record ID, and then proceed to create the record.



Step 6: Provide the same name of the record to be used for calling Ezeelogin. Paste the public IP of the secondary node, set the TTL seconds to 0, choose the routing policy as weighted with a weight of 0, provide the record ID, and then proceed to create the record.

Record 1

Record name: gateway .cloudweg.com

Record type: A - Routes traffic to an IPv4 address and some AWS resources

Value: 3.109.185.205

TTL (seconds): 0

Routing policy: Weighted

Weight: 0

Record ID: gw2

Create records

Step 7: Create another record for primary with primary public IP.

Record 1

Record name: primary .cloudweg.com

Record type: A - Routes traffic to an IPv4 address and some AWS resources

Value: 65.0.103.183

TTL (seconds): 0

Routing policy: Weighted

Weight: 0

Record ID: gw1

Create records

Step 8: Create another record for secondary with secondary public IP.

Record 1

Record name: .cloudweg.com

Record type:

Value:

TTL (seconds): (1m, 1h, 1d)

Routing policy:

Weight:

Record ID:

[Add another record](#)

[Cancel](#) [Create records](#)

Step 9: Created records can be viewed under hosted zones.

Hosted zone details

Records (6)

Record name	Type	Routing policy	Weight	Value/Route traffic to	TTL (s)	Health check	Evaluation
cloudweg.com	NS	Simple	-	ns-1626.awsdns-11.co.uk, ns-757.awsdns-30.net, ns-1302.awsdns-34.org, ns-122.awsdns-15.com	172800	-	-
cloudweg.com	SOA	Simple	-	ns-1626.awsdns-11.co.uk, a...	900	-	-
gateway.cloudweg.com	A	Weighted	100	65.0.103.183	0	-	9...
gateway.cloudweg.com	A	Weighted	0	3.109.185.205	0	-	9...
primary.cloudweg.com	A	Weighted	0	65.0.103.183	0	-	9...
secondary.cloudweg.com	A	Weighted	0	3.109.185.205	0	-	9...

Step 10: To change the weight, select the secondary record -> edit record -> change weight to 100 and save.

Route 53 > Hosted zones > cloudweg.com

Public cloudweg.com info

Hosted zone details

Records (6)

Filter records by property or value

Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	TT
cloudweg.com	NS	Simple	-	No	ns-1626.awsdns-11.co.uk. ns-757.awsdns-30.net. ns-1302.awsdns-34.org. ns-122.awsdns-15.com.	17
cloudweg.com	SOA	Simple	-	No	ns-1626.awsdns-11.co.uk. a...	90
gateway.cloudweg.com	A	Weighted	100	No	65.0.103.183	0
primary.cloudweg.com	A	Weighted	0	No	65.0.103.183	0
secondary.cloudweg.com	A	Weighted	0	No	3.109.185.205	0

Value: 3.109.185.205

TTL (seconds): 0, 1m, 1h, 1d

Routing policy: Weighted

Weight: 100

Health check ID - optional: gw2

Record ID: gw2

Save

Select the primary record -> edit record -> change weight to 0 and save.

Route 53 > Hosted zones > cloudweg.com

Public cloudweg.com info

Hosted zone details

Records (6)

Filter records by property or value

Record name	Type	Routin...	Differ...	Alias	Value/Route traffic to	TT
cloudweg.com	NS	Simple	-	No	ns-1626.awsdns-11.co.uk. ns-757.awsdns-30.net. ns-1302.awsdns-34.org. ns-122.awsdns-15.com.	17
cloudweg.com	SOA	Simple	-	No	ns-1626.awsdns-11.co.uk. a...	90
gateway.cloudweg.com	A	Weighted	100	No	65.0.103.183	0
primary.cloudweg.com	A	Weighted	0	No	65.0.103.183	0
secondary.cloudweg.com	A	Weighted	0	No	3.109.185.205	0

Value: 65.0.103.183

TTL (seconds): 0, 1m, 1h, 1d

Routing policy: Weighted

Weight: 0

Health check ID - optional: gw1

Record ID: gw1

Save

Step 11: Click on health checks and create new health check for both primary and secondary.

Create health check

Filter by keyword

Name	Status	Description	Alarms	ID

Provide a name for the primary health check settings, select the protocol, paste the public IP of the primary node, and then save the settings.

aws Services Search [Alt+S]

Step 1: Configure health check

Step 2: Get notified when health check fails

Configure health check

Route 53 health checks let you track the health status of your resources, such as web servers or mail servers, and take action when an outage occurs.

Name: primary

What to monitor: ☒ Endpoint ☐ Status of other health checks (calculated health check) ☐ State of CloudWatch alarm

Monitor an endpoint

Multiple Route 53 health checkers will try to establish a TCP connection with the following resource to determine whether it's healthy. [Learn more](#)

Specify endpoint by: ☒ IP address ☐ Domain name

Protocol: HTTPS

IP address: 65.0.103.183

Host name: www.example.com

Port: 443

Path: /images

Advanced configuration

URL: https://65.0.103.183:443/

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Provide a name for the secondary health check settings, select the protocol, paste the public IP of the secondary node, and then save the settings.

aws Services Search [Alt+S]

Step 1: Configure health check

Step 2: Get notified when health check fails

Configure health check

Route 53 health checks let you track the health status of your resources, such as web servers or mail servers, and take action when an outage occurs.

Name: secondary

What to monitor: ☒ Endpoint ☐ Status of other health checks (calculated health check) ☐ State of CloudWatch alarm

Monitor an endpoint

Multiple Route 53 health checkers will try to establish a TCP connection with the following resource to determine whether it's healthy. [Learn more](#)

Specify endpoint by: ☒ IP address ☐ Domain name

Protocol: HTTPS

IP address: 3.109.185.205

Host name: www.example.com

Port: 443

Path: /images

Advanced configuration

URL: https://3.109.185.205:443/

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Step 12: The health check settings have been created, and their status can be viewed in the health checks tab.

The screenshot shows the AWS Health Checks console. On the left, there is a navigation menu with options like Dashboard, Hosted zones, Health checks, IP-based routing, CIDR collections, Traffic flow, Traffic policies, Policy records, Domains, Registered domains, Pending requests, Resolver, VPCs, Inbound endpoints, Outbound endpoints, Rules, Query logging, and Outposts. The 'Health checks' section is selected. At the top, there are buttons for 'Create health check', 'Delete health check', and 'Edit health check'. Below these, there is a table of health checks. The table has columns for Name, Status, Description, Alarms, and ID. Two health checks are listed: 'primary' and 'secondary'. The 'primary' check is marked as 'Unhealthy' with a red status bar and a description of 'https://65.0.103.183:443/'. The 'secondary' check is marked as 'Healthy' with a green status bar and a description of 'https://3.109.185.205:443/'. Below the table, there are tabs for 'Info', 'Monitoring', 'Alarms', 'Tags', 'Health checkers', and 'Latency'. The 'Info' tab is selected, showing 'No health check selected.'

Name	Status	Description	Alarms	ID
primary	Unhealthy	https://65.0.103.183:443/	No alarms configured.	9787bcee-d752-4987-bf43-2cf37d30afd7
secondary	Healthy	https://3.109.185.205:443/	No alarms configured.	bdb98518-1c8e-4011-9697-7c8a3d852386

Step 13: Now gateway server can be access with gateway.cloudweg.com and according to the weight distribution the primary or secondary node can be accessed.

Related Articles:

[Install slave / secondary node for high availability in jump server](#)

[Cluster \(Master-Slave\) explained in Ezeelogin](#)

[Switching node states in Ezeelogin Cluster](#)

[Create load balancer in AWS for Ezeelogin Cluster](#)

Online URL:

<https://www.ezeelogin.com/kb/article/dns-load-balancing-for-ha-using-aws-route-53-681.html>