

DNS load balancing for HA using AWS Route 53

681 Nesvin KN April 22, 2025 [Features & Functionalities](#), [General](#) 1379

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

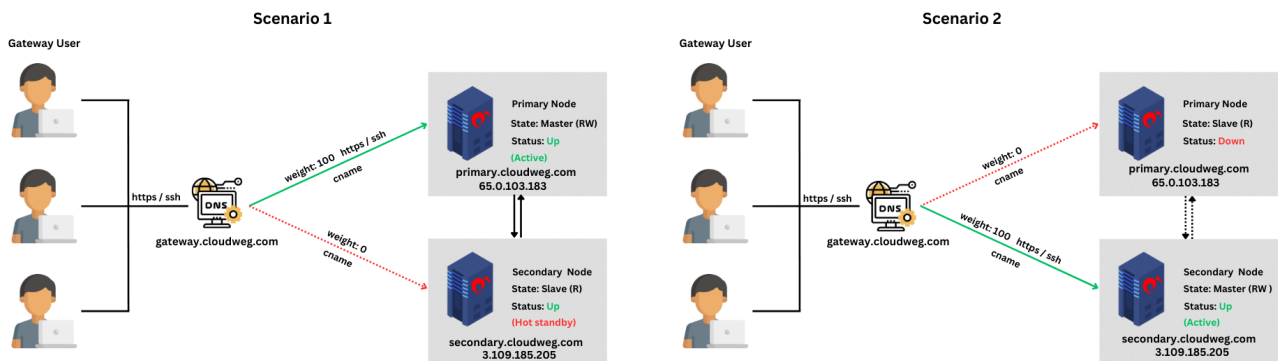
Overview: This article explains how to implement DNS load balancing in an Ezeelogin cluster using AWS Route 53 to achieve high availability (HA), by directing traffic between a primary and a hot-standby secondary node based on DNS weight configuration and health checks.

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:

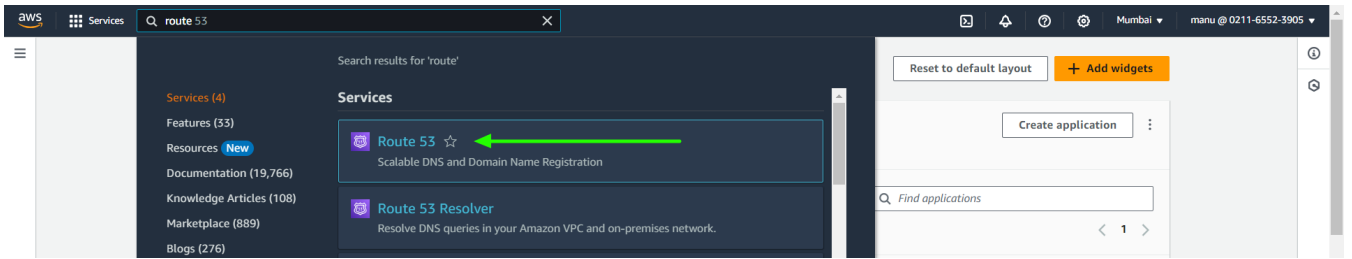


Scenario 1: **Primary node is in active state and secondary is in the hot standby mode.** Traffic is routed to the primary node.

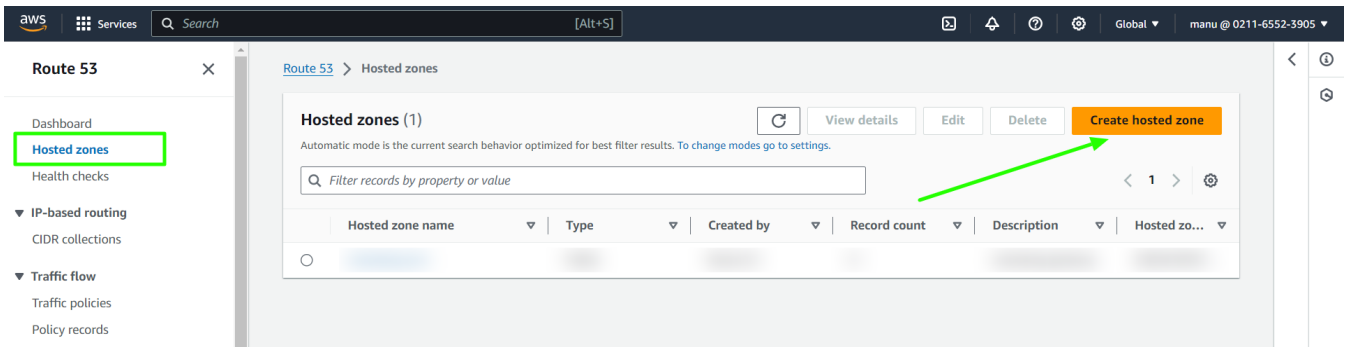
Scenario 2: **Primary node is down and secondary node is in the active state.** Traffic is routed to the secondary node.

Steps to set the DNS in AWS Route 53:

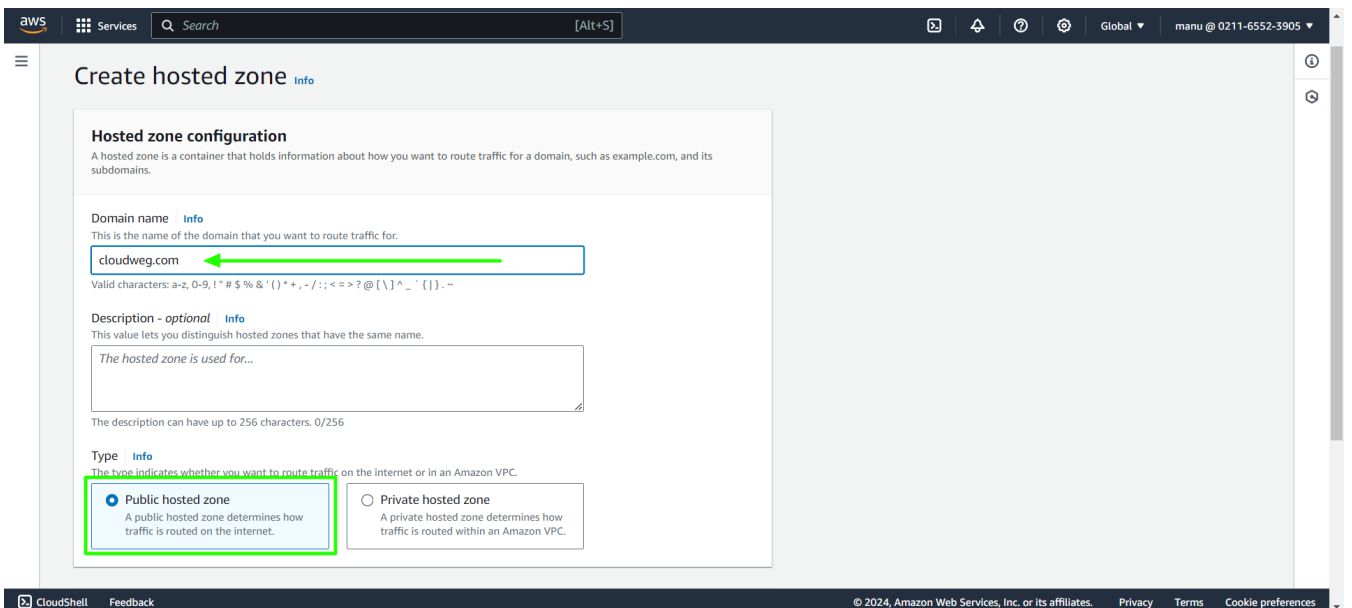
Step 1: Login to **AWS account** and search for **Route 53**.



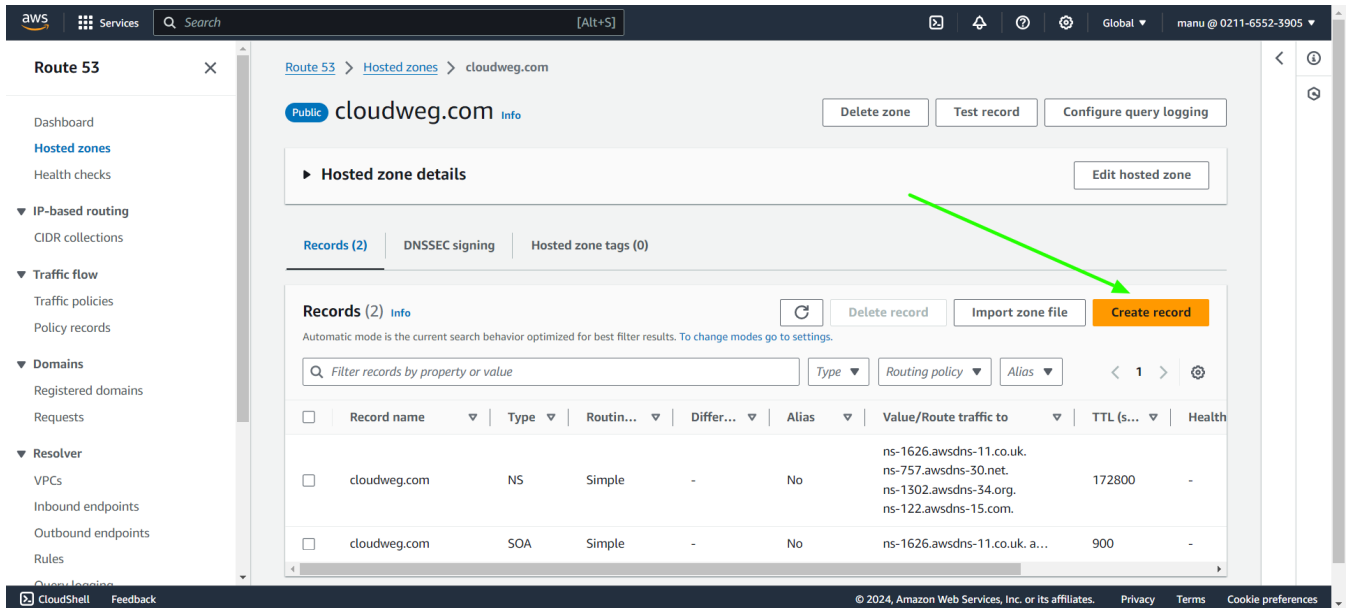
Step 2: Select Hosted zones and create new hosted zone.



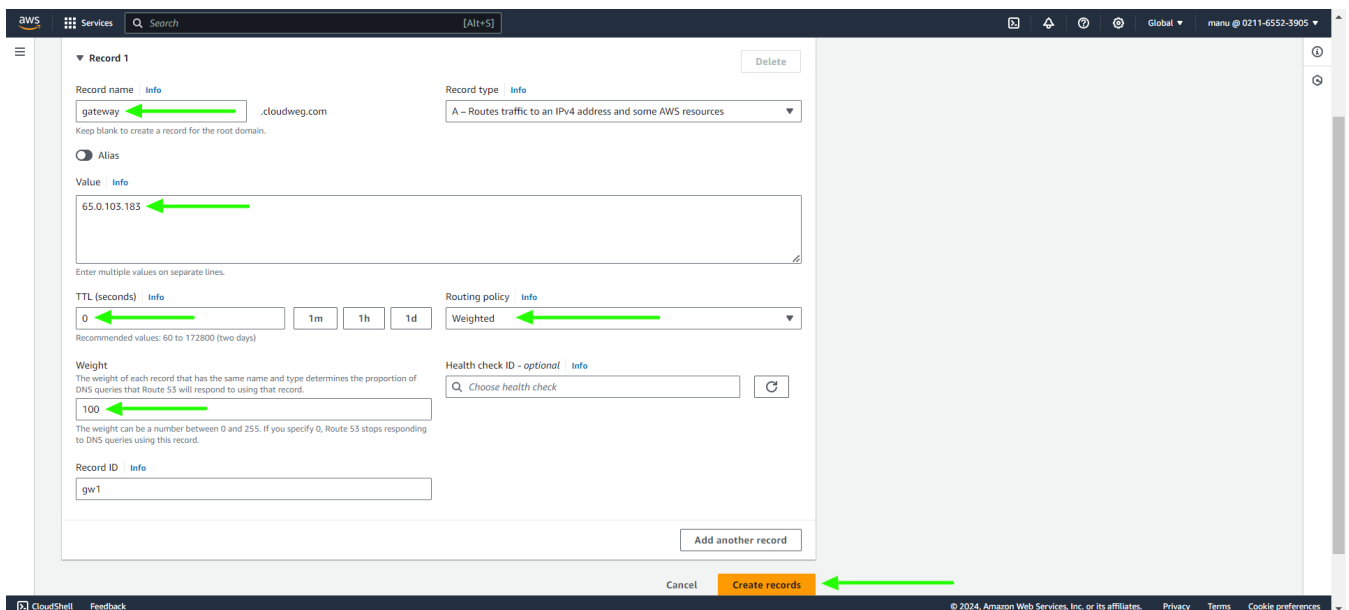
Step 3: Provide domain name in hosted zone configuration and select public hosted zone.



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.

The screenshot shows the AWS Route 53 console interface for creating a new record. The record is named 'gateway' and is associated with the domain 'cloudweg.com'. The record type is set to 'A - Routes traffic to an IPv4 address and some AWS resources'. The value field contains the IP address '3.109.185.205'. The TTL (seconds) is set to '0', and the routing policy is 'Weighted'. The weight is set to '0'. The record ID is 'gw2'. The 'Create records' button is highlighted with a green arrow.

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.

The screenshot shows the AWS Route 53 console interface for creating a new record. The record is named 'primary' and is associated with the domain 'cloudweg.com'. The record type is set to 'A - Routes traffic to an IPv4 address and some AWS resources'. The value field contains the IP address '65.0.103.183'. The TTL (seconds) is set to '0', and the routing policy is 'Weighted'. The weight is set to '0'. The record ID is 'gw1'. The 'Create records' button is highlighted with a green arrow.

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	Differ...	Alias	Value/Route traffic to	TTL (s...)	Health ...	Evalua...
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.	172800	-	-
cloudweg.com	SOA	Simple	-	No	ns-1626.awsdns-11.co.uk. a...	900	-	-
gateway.cloudweg.com	A	Weighted	100	No	65.0.103.183	0	-	9...
gateway.cloudweg.com	A	Weighted	0	No	3.109.185.205	0	-	9...
primary.cloudweg.com	A	Weighted	0	No	65.0.103.183	0	-	9...
secondary.cloudweg.com	A	Weighted	0	No	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

Delete zone Test record Configure query logging

Hosted zone details Edit hosted zone

Records (6) DNSSEC signing Hosted zone tags (0)

Records (1/6) info

Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

Filter records by property or value Type Routing pol... Alias < 1 >

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
gateway.cloudweg.com	A	Weighted	0	No	3.109.185.205	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 info

3.109.185.205

Enter multiple values on separate lines.

TTL (seconds) info

0 1m 1h 1d

Recommended values: 60 to 172800 (two days)

Routing policy info

Weighted

Weight

The weight of each record that has the same name and type determines the proportion of DNS queries that Route 53 will respond to using that record.

The weight can be a number between 0 and 255. If you specify 0, Route 53 stops responding to DNS queries using this record.

100

Health check ID - optional info

Choose health check

Record ID info

gw2

Cancel Save

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

Route 53 > Hosted zones > cloudweg.com

Public cloudweg.com info

Delete zone Test record Configure query logging

Hosted zone details Edit hosted zone

Records (6) DNSSEC signing Hosted zone tags (0)

Records (1/6) info

Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

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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
gateway.cloudweg.com	A	Weighted	0	No	3.109.185.205	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 info

65.0.103.183

Enter multiple values on separate lines.

TTL (seconds) info

0 1m 1h 1d

Recommended values: 60 to 172800 (two days)

Routing policy info

Weighted

Weight

The weight of each record that has the same name and type determines the proportion of DNS queries that Route 53 will respond to using that record.

The weight can be a number between 0 and 255. If you specify 0, Route 53 stops responding to DNS queries using this record.

0

Health check ID - optional info

Choose health check

Record ID info

gw1

Cancel Save

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

Create health check Delete health check Edit health check

Filter by keyword

Name	Status	Description	Alarms	ID

<< < 1 to 4 of 4 health checks > >>

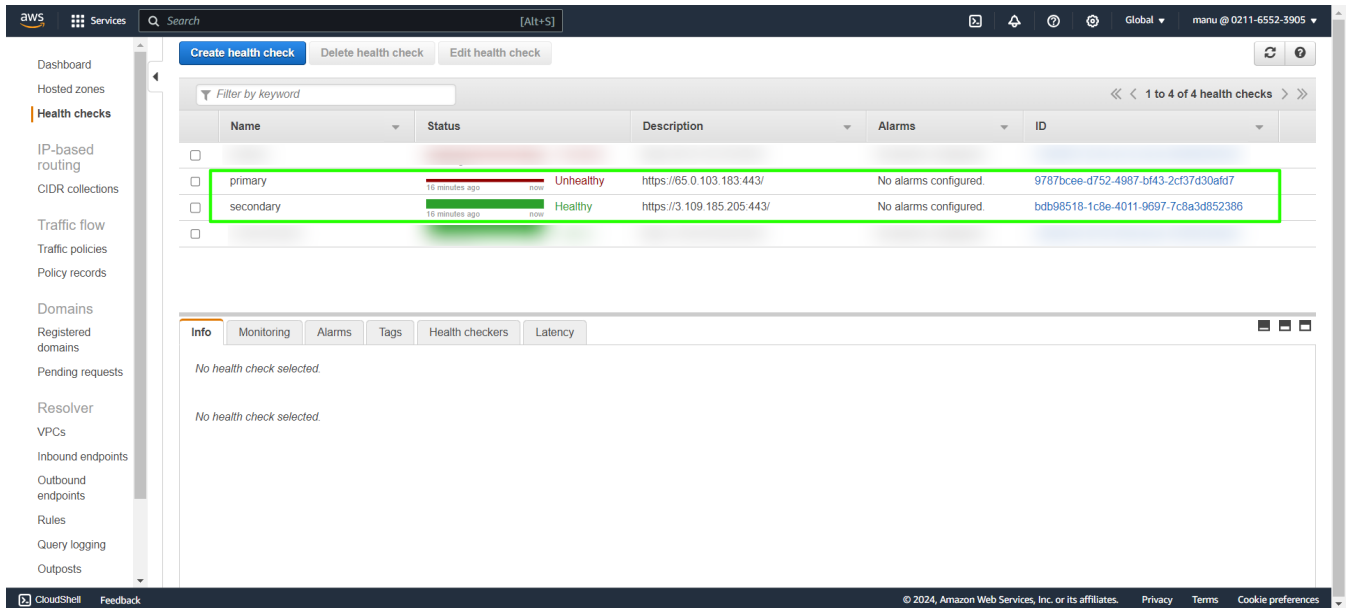
Provide a name for the primary health check settings, select the protocol, paste the public IP of the primary node, and then save the settings.

The screenshot shows the 'Configure health check' page in the AWS console. The 'Name' field is set to 'primary'. Under 'What to monitor', 'Endpoint' is selected. The 'Monitor an endpoint' section shows 'Specify endpoint by' set to 'IP address'. The 'Protocol' is 'HTTPS', 'IP address' is '65.0.103.183', 'Host name' is 'www.example.com', 'Port' is '443', and 'Path' is '/images'. The 'URL' at the bottom is 'https://65.0.103.183:443/'.

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.

The screenshot shows the 'Configure health check' page in the AWS console for a secondary health check. The 'Name' field is set to 'secondary'. Under 'What to monitor', 'Endpoint' is selected. The 'Monitor an endpoint' section shows 'Specify endpoint by' set to 'IP address'. The 'Protocol' is 'HTTPS', 'IP address' is '3.109.185.205', 'Host name' is 'www.example.com', 'Port' is '443', and 'Path' is '/images'. The 'URL' at the bottom is 'https://3.109.185.205:443/'.

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



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>