30-sept-2021

Ec2:

Volume

Instance

Keypair

Eip

Sg

Snapshot

Ami

1. Elb: we have 4 load balancers
2. n/w
3. app
4. classic
5. gateway
6. elb:
7. work is distubuted load to multiple servers between the az .Based on the servers we configure.
8. What is dns: domaine name it is and ip address mapped with domine
9. One machine communicate with other machine want ipadress:port
10. Facebooke having multiple servers but we use one server what is problems we face
11. Server it might be faild: users does not acess my app
12. High load: lot of load performance will be degrated

These those 2 things avoid for came elb.

1. Face book having multiple servers

Elb load distubuted to multiple servers.

In aws in build software is there as a aws customer it will use

Facebook.com---------------------------------elb---------------------------s1(az1)

S2(az2)

S3(az3)

S4(az4)

Facebook having 1000 req at 7:am elb work is 250 req send to every server.(using )

Client giving req to facebook that req goes to elb .elb distubuted the req to multiple req

Elb distubuted the load multiple availability zones machines in that region

Elb distubuted the load with in a region machines only.

Server 4 is failure entire load goes to 3 servers only elb not send that load to faild server.

It is u r duty machines are distubute multiple avalabilityzones.

1. One machine is communicate with another machine wants ip:port
2. How you elb knows on which port your applivation running.elb doesnot know as a admin you need to configure.port number.

We need to install application in s1,s2,s3, particular port number we need to configure that port number to elb.

1. Instance port: we configure port on elb where app is running that port is call insport.
2. Load balancer port:when ever we configure elb that elb get req on one port number.
3. Client----------------------route53-------------------elb------------------server
4. Elb continuously do the health checks of your application runs on a ec2 instance.

Health check means : application running or not.

Application is health only ec2-machine send req to that machine

Application is unhealthy elb not sending req to the that machine

1. Configure elb ping port 80.your app runs on port 80. So ping port give 80.
2. Every 30 sec elb do tha health-checks. Application is runs or not
3. Healththreshold: we gave : 3 elb health checks evry 30 sec it get positive response but it is not treat as app is running immdiatly . after 3 conqutives types it will get 3 positive response

Then only it will treate as a app is health then only it will send req to that server.

Unhealtthreshold: elb ping application it got a negative response immdiatly it is not a treat as a unhealthy app .

We gave unhealthy=3 elb continuos 3 times it got a failure response then only it treat as a

Unheal application.

1. Elb------s1(500)

S2(168)

S3(167)

S4(167)

Cross-zone load balancing:disable distubutes load based on az.

1000 requests elb got it distubuted like this above

Elb distubuted the load based on 2 things:

1. Recomandes default no.of instances.

Number of req/no.of health instances.

1000/4=250

Cross-zone load balancing:enabled distubutes load based on instancess.

Cross-zone load balancing:disable distubutes load based on az’s.

1. Based on no.of availability zone it is distubted the load.
2. Elb is internally ec2-only that server is having loadbalancer software.

Lb’s softwares It works one round-robin algorithem.

Elb is ip address but aws not give ip it give dns name.

Elb ip address mapped to the dns name and give dns name only.

1. Elb having sg group.
2. Response time out: with in the time elb get a response other wise it might be some problem.
3. Interval: 6 sec: every 6 sec it will ping to application for healthy or unhealthy.
4. When we create elb it will give dns.that dns mapped to our app.
5. Outofservice: means application is unhealthy.
6. Inservice: app is running.
7. I am dong req forwarded to 80 port number of elb elb forwarded to 80 port number of app.
8. It is possible to change elb:port -90 elb take 90 port and forwreded to 80 port number.
9. 90 request forwarded to 90 port number.
10. **Client req is giving req to 90 port number of elb that elb 90 req forwarded to 80 port of instancs.**
11. http 80-elb 8080: elb take 80 req and forwared to 8080

then my application runs on 80 port number in ec2. Elb contnous health checks on 80

but heare ping port given: 80

then instance is in service.

Elb contnous health checks on 80

What ever your app runs port that port you have to mapped to ping port.

Tasks:

single region

1. create keypair
2. create sg for ec2,allow ib 80,22-anywhere,all ob req are deny
3. create ec2-instance1 in ap-south-1a,attach step1 keypair,step2 security group
4. create ec2-instance2 in ap-south-1b,attach step1 keypair,step2 security group
5. create sg group for elb allow ib 80 and ob alltrafic.
6. Create elb and select 1a,1b az and attach sg group of step5
7. Attach ec1,ec2. To the elb
8. Copy dns name copy the browser.
9. Delete elb
10. Delete ec2-1 instance.
11. Create ce2-2 instance ami.
12. Give ec2-2 ami –permision to to ac number”950829519464”
13. Not down ami snapshot id.

Main points:

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1. Ping port.