

This design will use the ELB to route the inbound application traffic from web users, on round-robin to either of the registered EC2 instances.

EC2 autoscaling will allow for increasing the number of instances from the basic 2 to a maximum of 6, to accommodate increased requests triggered by instance failure or CPU utilization initially. Our LoadBalancer is able to resize as needed on demand.

The VPC was created within a single region, but 2 AZ's are needed to accommodate each computer resource set.

The App-loadbalancer will be configured to only allow port 80 and 443 only to the public subnets where the EC2 instances are located.

For the data layer we will use RDS instance with reader replication to one of the AZ's. The RDS instances will communicate with the EC2 instances within the private subnet to prevent data exposure to the internet. The RDS aurora can be optimized to be a drop in for Mysql database, but's optimized for cost and speed to pure RDS Mysql, there are also no need to account for scaling for this type of HA database offering.