MongoDB Sharding and HA

Autosharding increases
writes, helps with scale out

Replication sets are for high
availability and read scaling
not write scaling

Each shard / partition has
It's own replication set

Application

Mongod

Large
Deployments

Shared
Configuration
Servers

Driver

MongoDB
Config Server

Routes Request to
MongoDB Servers

Query Router

Shard 1

Shard 3

MongoDB Shards Servers
Data is distributed into each shards themselves replicated

Shard 2

Shard N

Primary mongos deamon	And Replication RS1
Secondary mongos deamon	And Replication RS2
Secondary mongos deamon	And Replication RS2

Primary mongos deamon	And Replication RS1
Secondary mongos deamon	And Replication RS2
Secondary mongos deamon	And Replication RS2

Primary mongos deamon	And Replication RS1
Secondary mongos deamon	And Replication RS2
Secondary mongos deamon	And Replication RS2

...
...
...

Primary mongos deamon	And Replication RS1
Secondary mongos deamon	And Replication RS2
Secondary mongos deamon	And Replication RS2

Mongos1

Mongos2

Mongos3

Load Balancer

NGINX

NGINX

NGINX