AWS Fundamentals: RDS Aurora + Elasti cache

RDS supports MySQL, PostgreSQL, MariaDB, Oracle, MS SQL Server, Amazon Aurora.

Multi-AZ helps when you plan a disaster recovery for an entire AZ going down. If you plan against an entire AWS Region going down, you should use backups and replication across AWS region.

Elasticache and RDS Read Replicas help with scaling reads.

Read replicas have asynchronous replication

Multi-AZ keeps the same connection string regardless of which database is up.

Storing session data in Elasticache is a common pattern to ensuring different EC2 instances can retrieve your user's state if needed.

Read replicas will help as your analytics application can now perform queries against it, and these queries won't impact the main production RDS database.

Aurora Global Database allows you to have an Aurora Replica in another AWS Region, with up to 5 secondary regions.

Enhance security of Elasticache Redis Cluster- Use Redis Auth.

Minimize disruption for the main application: Create a read replica in a different AZ and run the analytics workload on the replica DB.

DR database must be highly available: Create a Read replica in a different region and enable multi-AZ on the read-replica.

Enable IAM Database Authentication: Suitable approach to give access to developers to the MySQL RDS DB instance instead of creating a DB user for each one.

Read Replicas: Asynchronous Replication,
Multi-AZ: Synchronous Replication.

Encrypt an unencrypted RDS DB instance: Create a snapshot of the unencrypted RDS DB instance, copy the snapshot and tick "Enable encryption" then restore the RDS DB instance from the encrypted snapshot.

For RDS database, you can have up to 5 Read Replicas.

Oracle: Does not support IAM DB authentication.

You can not create encrypted Read Replicas from an

unencrypted RDS DB instance.
- Aurora read replicas in a single DB cluster: 15.
- Amazon Aurora supports - MySQL and Postgresql database.
- Real-time, effective and highly available - Elasticache for Redis - sorted sets.
- Full customization of an oracle DB on AWS: RDS custom for Oracle.
- Long term backups for Aurora DB for disaster recovery and audit purposes: Perform on demand backups.
- Aurora cloning: Perform a suite of read & write tests against production Aurora DB because they need access to production data as soon as possible.
- Reconnect to RDS: We an RDS Proxy (This reduces the failover time by upto 66% and keeps connection active for your application).