

AWS services IT infrastructure & software development.

- Amazon Elastic compute cloud (EC2)
 - Amazon EC2 provides resizable compute capacity in the cloud, allowing users to quickly scale computing resources as needed.

Use cases:

- Hosting web applications
- Running backend servers
- Batch processing

Benefits

- Flexibility to choose instance type
- Scalability
- Pay as you go pricing model
- Integration with other AWS services

Challenges

- Managing instances
- Optimizing costs
- Ensuring security config.

2 Amazon RDS

- ↳ Amazon RDS simplifies the setup operation, & scaling of a relational database in the cloud. It supports multiple database like MySQL, PostgreSQL, Oracle etc.

Use Cases

- web & mobile applications
- Backend databases
- E-commerce platform

Benefits

- Automated backups & updates
- Scalability
- Security

Challenges

- Cost management
- Database engine limitations
- Performance tuning & optimization.

3 Amazon Virtual private cloud

Amazon VPC enable you to provision a logically isolated section of the AWS cloud where you can launch AWS

Use cases:

- Hosting secure web app
- Extending corporate networks
- Disaster recovery
- Running sensitive workloads

Benefits

- Network isolation & control
- Customizable network config
- Enhanced security

challenges

- Complexity
- Network security
- Managing VPN & Direct connect links.