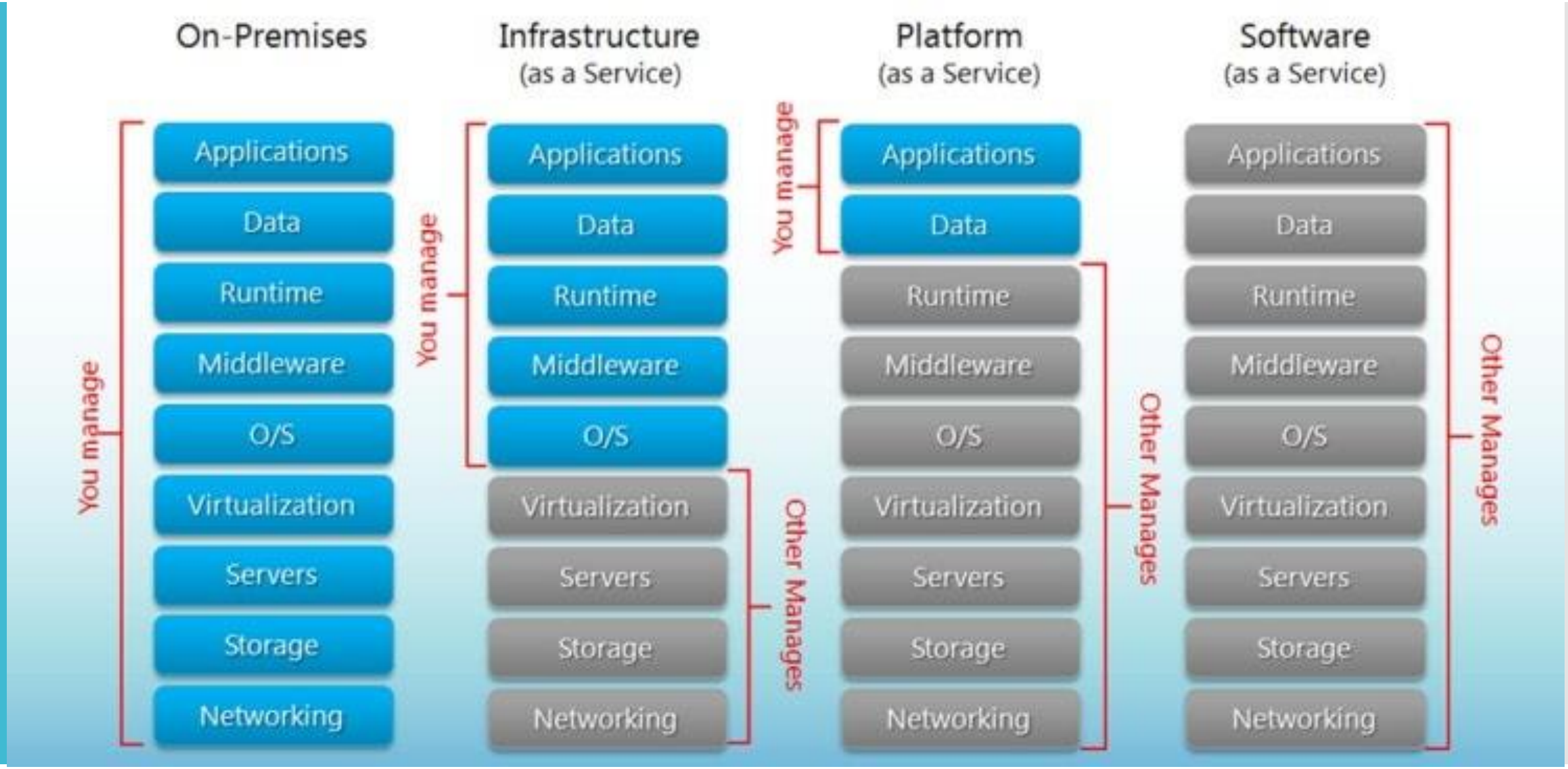
AWS RDS


On-Premises
Infrastructure
(as a Service)
Platform
(as a Service)
Software
(as a Service)
Applications
Data
Runtime
Middleware
O/S
Virtualization
Servers
Storage
Networking
You manage
You manage
You manage
Other Manages
Other Manages
Other Manages

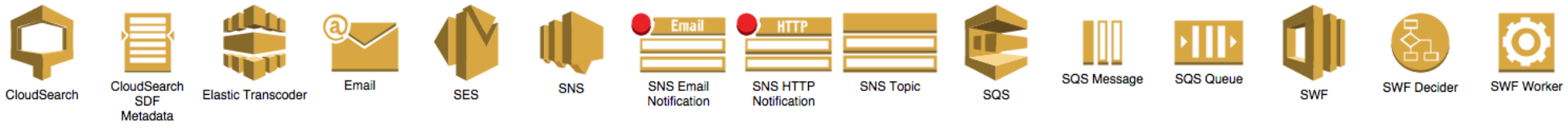
IaaS, vendor provides infra to user where a user gets hardware/virtualization infra, storage and Networking infra.

PaaS, vendor provides platform to user where a user gets all required things for their work like OS, Database, Execution Environment along with IaaS provided environment. So pass is platform + IaaS.

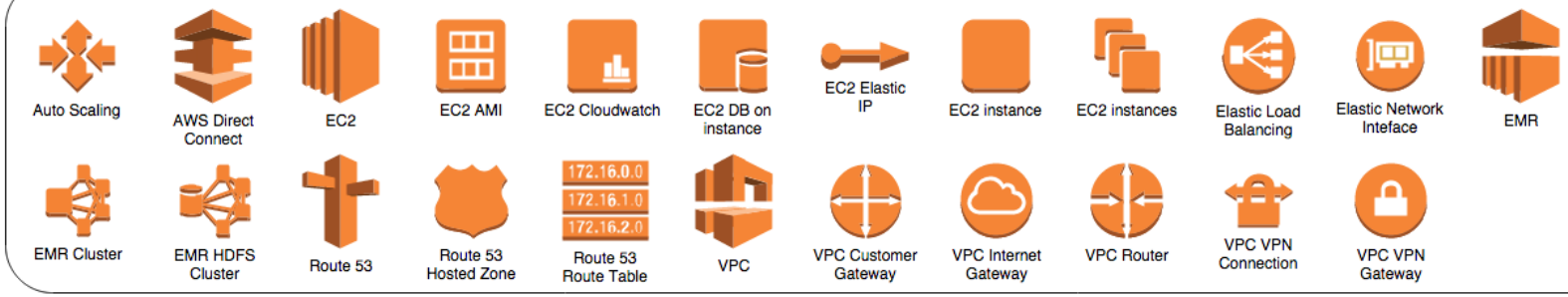
SaaS seems to be quite wide area where vendor provides almost everything from infra to platform to software. So SaaS is Iaas+PaaS along with different softwares like ms office, virtual box etc..

IAAS:
Amazon EC2
Amazon Elastic Block Store
Elastic Load Balancing
PAAS:
AWS Elastic Beanstalk
AWS RDS
SAAS:
AWS provides various SaaS applications in AWS marketplace

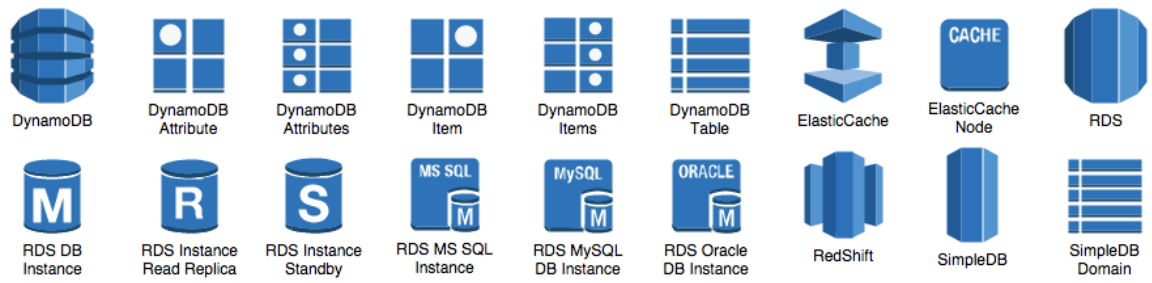
Application Services



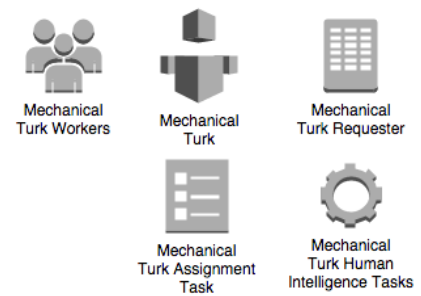
Compute and Networking



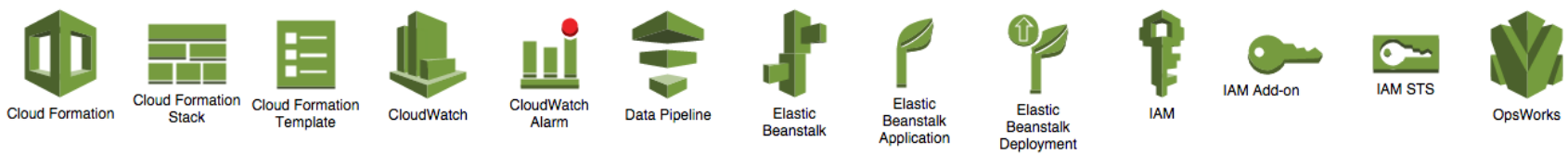
Database



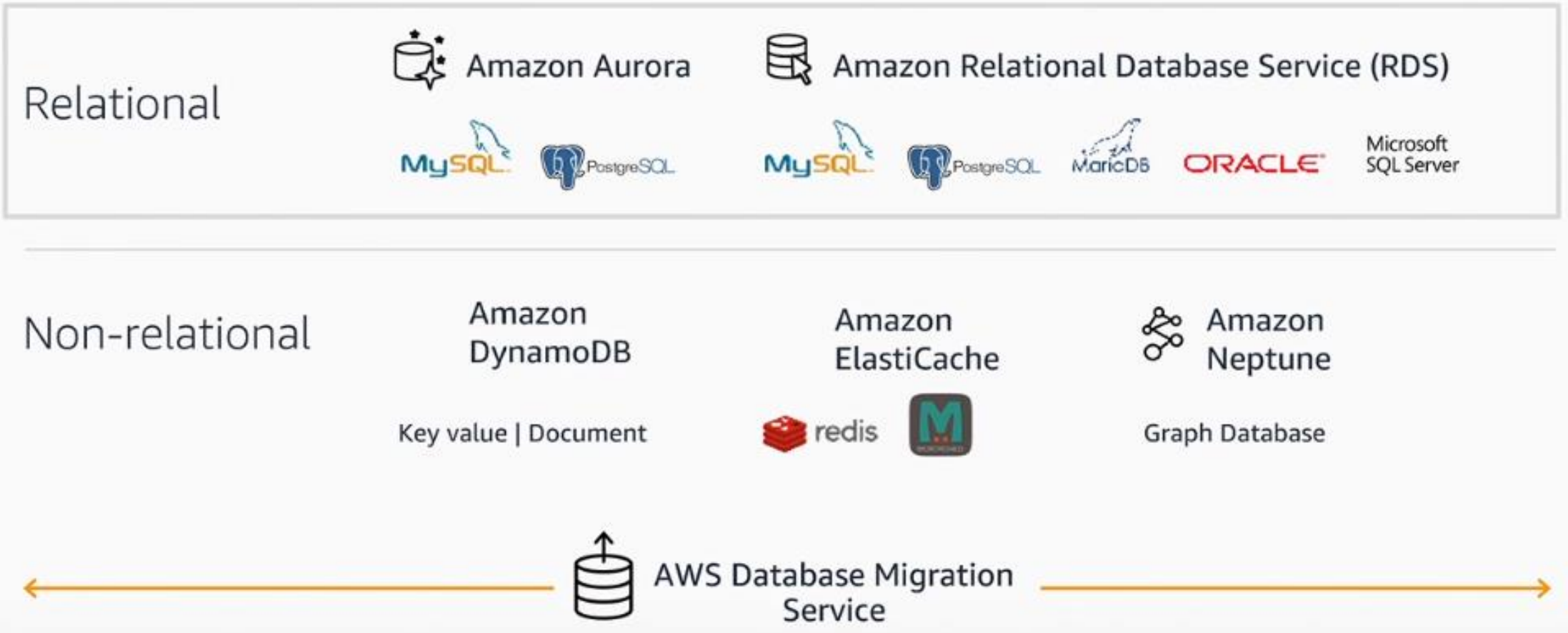
On-Demand Workforce



Deployment and Management



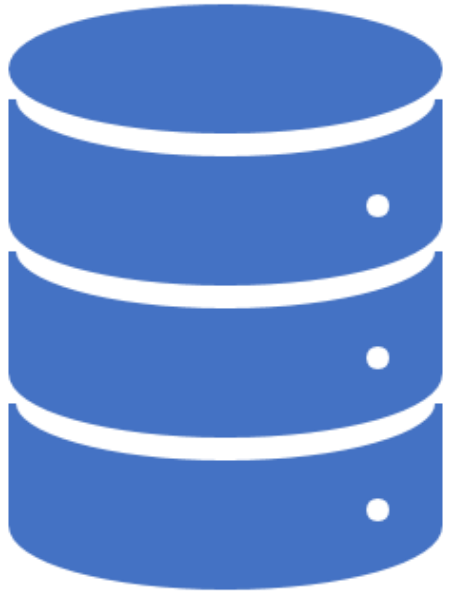
AWS Database Services



AWS RDS

Amazon RDS is a service which provides database connectivity through the Internet. RDS makes it very simple and easy to set-up a relational database in the cloud.

Instead of concentrating on database features, you can concentrate more on the application to provide high availability, security, and compatibility. RDS is a fully managed RDBMS service.



Amazon RDS

Managed relational database service with a choice of popular database engines

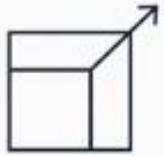
Amazon Aurora | MySQL | PostgreSQL | MariaDB | Microsoft SQL Server | ORACLE

Easy to administer

No need to provision infrastructure, install, and maintain DB software

Available & durable

Automatic Multi-AZ data replication; automated backup, snapshots, and failover



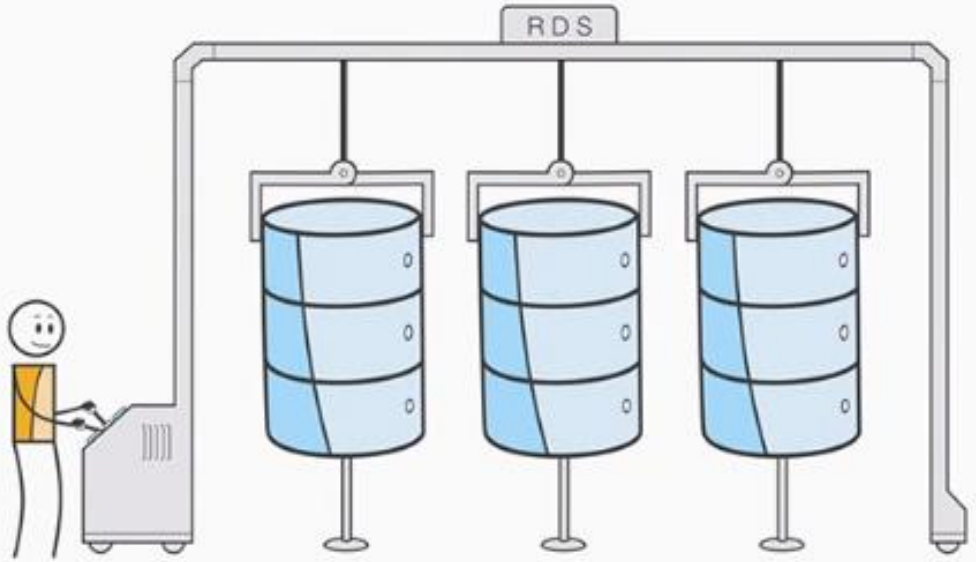
Highly scalable

Scale DB compute and storage with a few clicks; minimal downtime for your application

Fast & secure

SSD storage and guaranteed provisioned I/O; data encryption at rest and in transit

Ease of administration



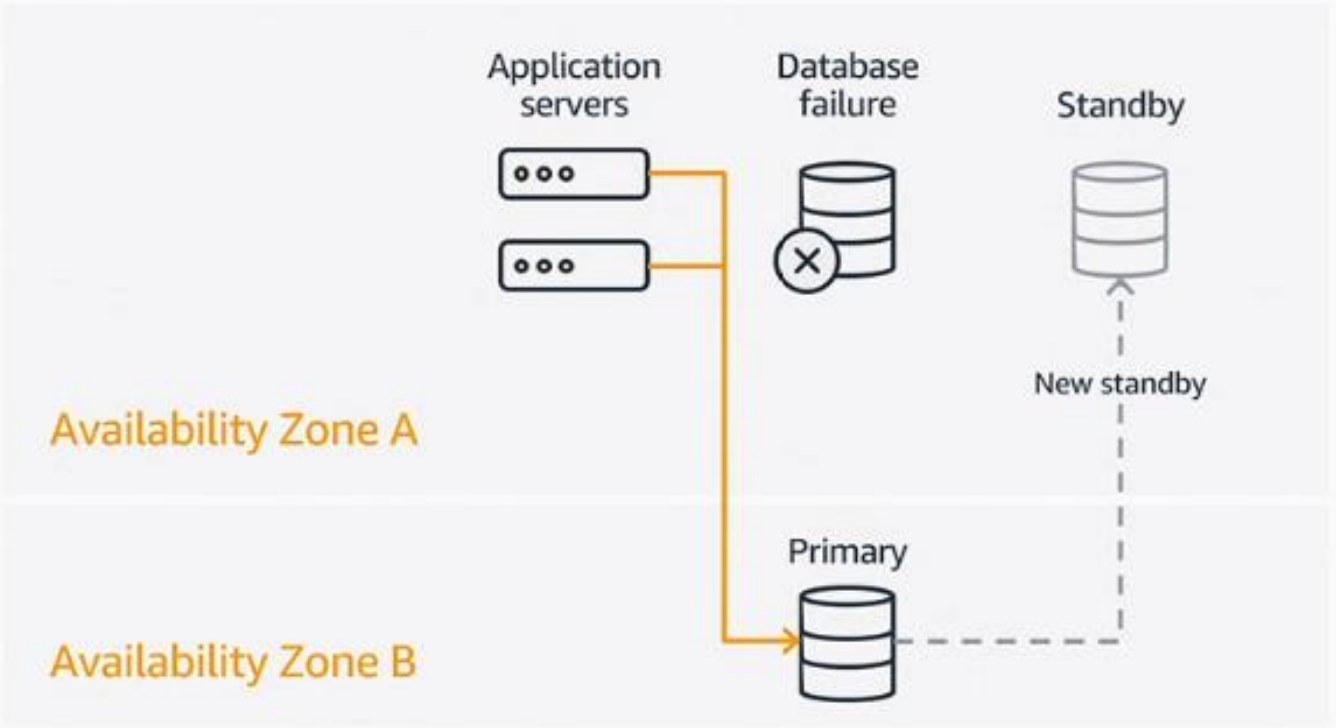
- Single console for managing all your relational databases
- Hardware provisioning, patching, backup/restore, scaling, and high availability with a few clicks
- Security and monitoring is built in

Multi-AZ deployments

Enterprise-grade high availability

Fault tolerance across multiple data centers

- Automatic failover
- Synchronous replication
- Enabled with one click

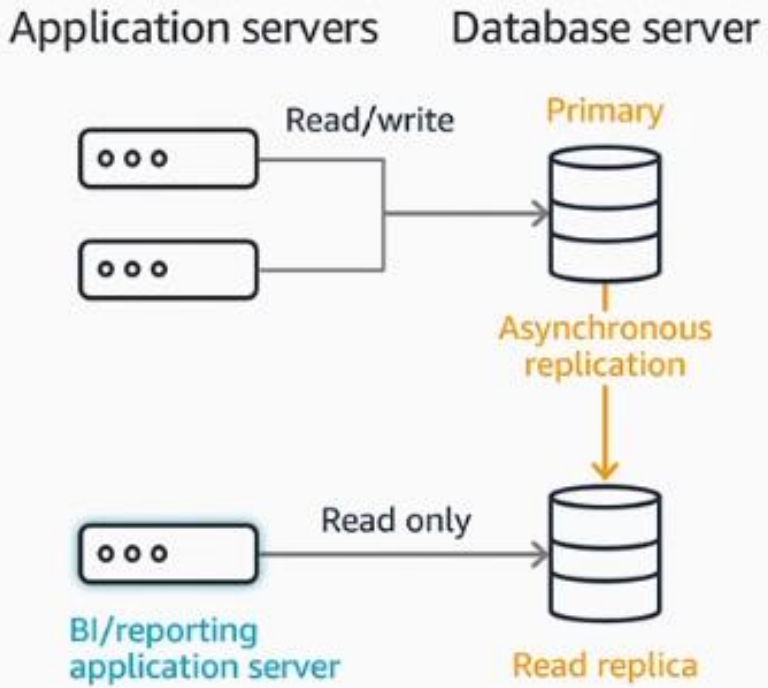


Read Replicas

Read scaling and disaster recovery

RDS for MySQL, PostgreSQL, MariaDB

- Relieve pressure on your master node with additional read capacity
- Bring data close to your applications in different regions
- Promote a read replica to a master for faster recovery in the event of disaster



Automated backups

Point-in-time recovery for your DB instance

- Scheduled daily volume backup of entire instance
- Archive database change logs
- 35–day maximum retention
- Minimal impact on database performance
- Taken from standby when running Multi-AZ

DB instance status

available

Multi AZ

Yes

Secondary zone

us-east-1d

Automated backups

Enabled (7 Days)

Latest restore time

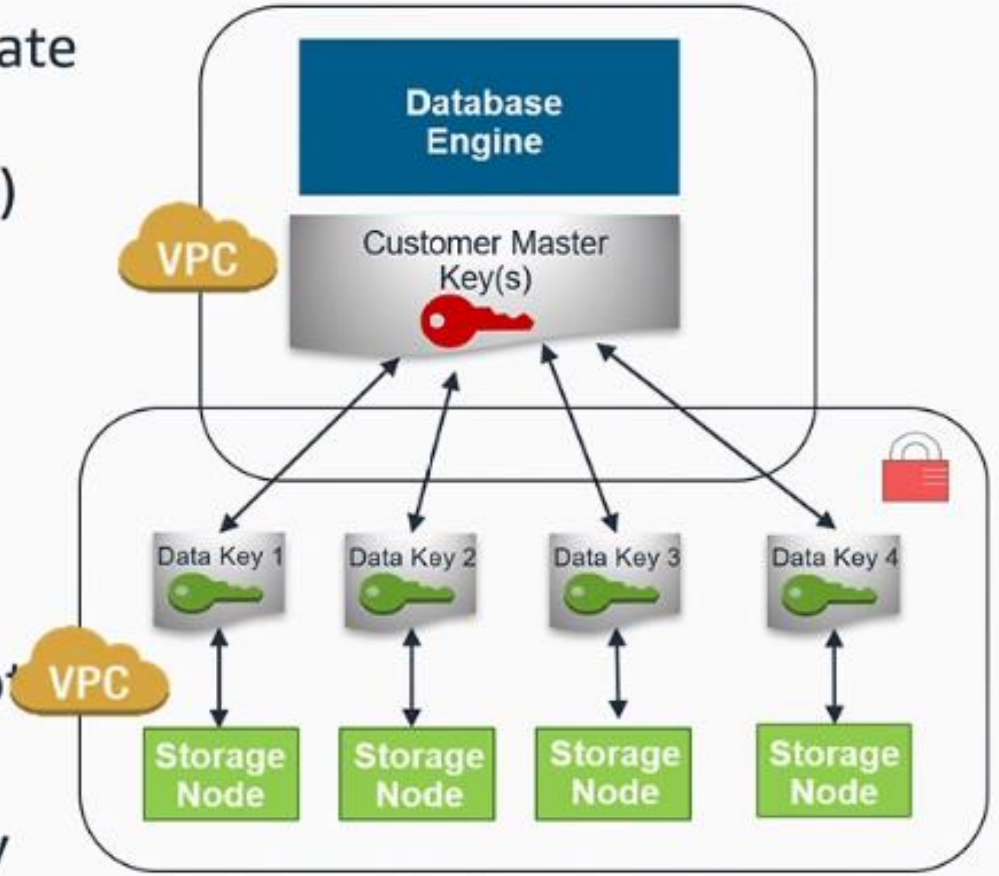
March 22, 2018 at 10:25:00 AM UTC-7

Every day during your backup window, RDS creates a storage volume snapshot of your instance

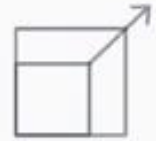
Every five minutes, RDS backs up the transaction logs of your database

Security and compliance

- ☑ Network isolation with Amazon Virtual Private Cloud (VPC)
- ☑ AWS Identify and Access Management (IAM) based resource-level permission controls
- ☑ Encryption to secure data at rest using customer managed keys
  - AES-256; hardware accelerated
  - All blocks on disk and in Amazon S3 are encrypted
  - Key management via AWS KMS
- ☑ Encrypted cross-region replication, snapsho copy - SSL to secure data in transit
- ☑ Advanced auditing and logging without any performance impact



Scale compute and storage with ease



Scale compute to handle increased load

- Up to 64 vCPU and 488 GiB of RAM

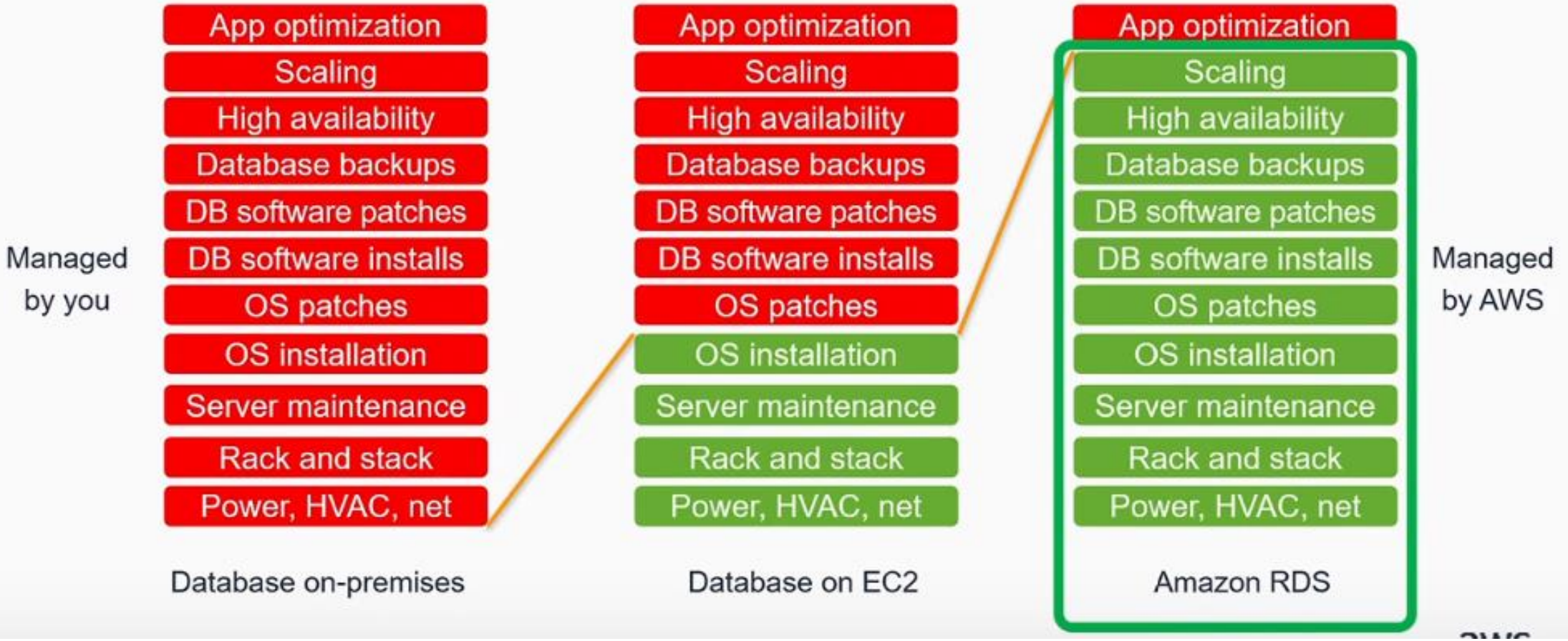
Scale storage for larger data sets

- Scalable EBS storage up to 16TB
- No downtime for storage scaling

Scale down to control costs

- As little as 1vCPU / 1 GiB of RAM

Everything you get from Amazon RDS . . .



MySQL on Amazon RDS

Demo