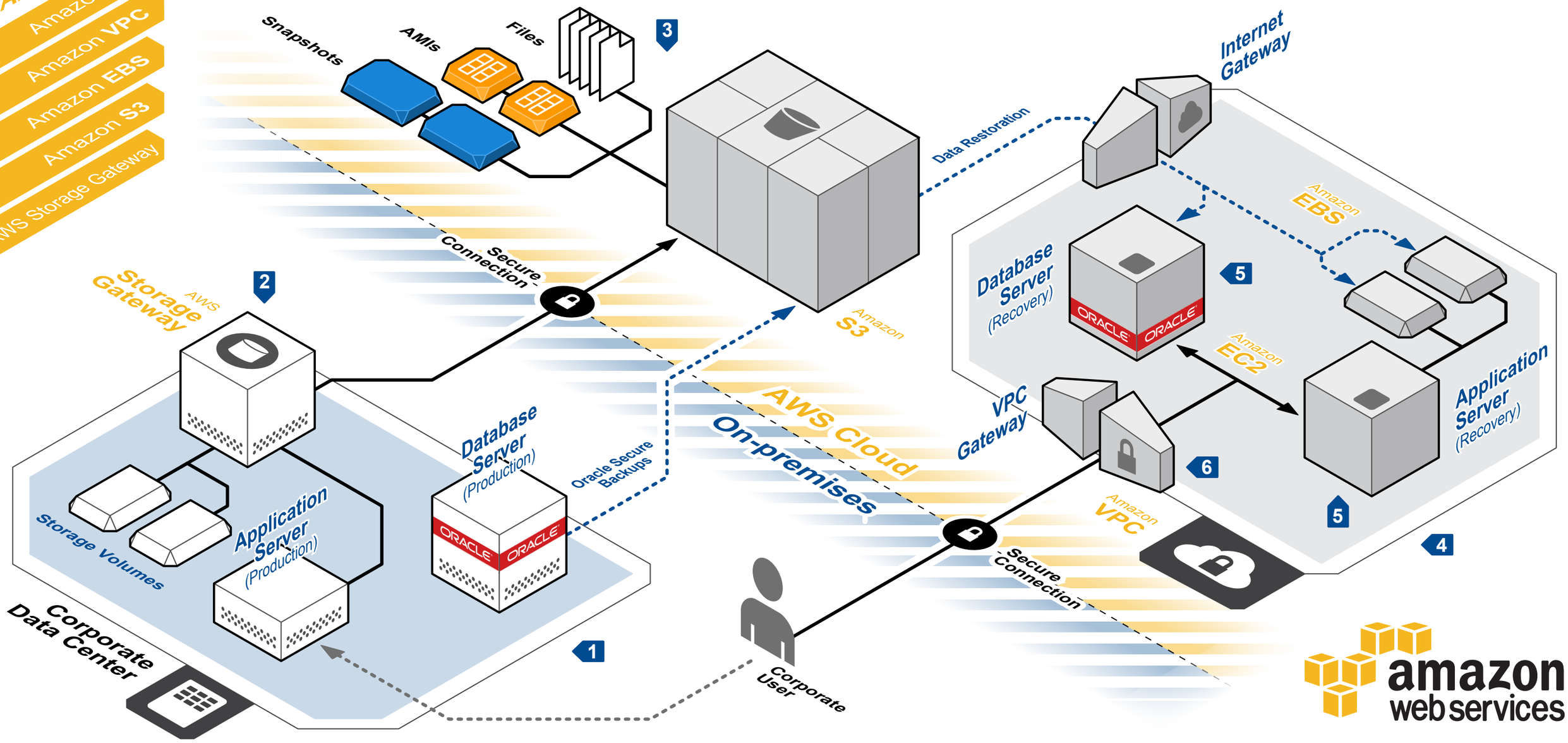
AWS Reference Architectures

- Amazon EC2
- Amazon VPC
- Amazon EBS
- Amazon S3
- AWS Storage Gateway

DISASTER RECOVERY FOR LOCAL APPLICATIONS

Disaster recovery is about preparing for and recovering from any event that has a negative impact on your IT systems. A typical approach involves duplicating infrastructure to ensure the availability of spare capacity in the event of a disaster.

Amazon Web Services allows you to scale up your infrastructure on an as-needed basis. For a disaster recovery solution, this results in significant cost savings. The following diagram shows an example of a disaster recovery setup for a local application.



System Overview

1 A corporate data center hosts an application consisting of a database server and an application server with local storage for a content management system.

2 **AWS Storage Gateway** is a service connecting an on-premises software appliance with cloud-based storage. **AWS Storage Gateway** securely uploads data to the AWS cloud for cost effective backup and rapid disaster recovery.

3 Database server backups, application server volume snapshots, and **Amazon Machine Images** (AMI) of the recovery servers are stored on **Amazon Simple Storage Service** (Amazon S3), a highly durable and cost-effective data store. AMIs are pre-configured operating system and application software that are used to create a virtual machine **Amazon Elastic Compute Cloud** (Amazon EC2). Oracle databases can directly back up to Amazon S3 using the **Oracle Secure Backup** (OSB) Cloud Module.

4 In case of disaster in the corporate data center, you can recreate the complete infrastructure from the backups on **Amazon Virtual Private Cloud** (Amazon VPC). **Amazon VPC** lets you provision a private, isolated section of the AWS cloud where you can recreate your application.

5 The application and database servers are recreated using **Amazon EC2**. To restore volume snapshots, you can use **Amazon Elastic Block Store** (EBS) volumes, which are then attached to the recovered application server.

6 To remotely access the recovered application, you use a VPN connection created by using the VPC Gateway.