

# **AWS Solution Architect Associate Certification Training – Module 12**

## 12. Virtual Private Network (VPN) & Direct Connect

### Introduction to Virtual Private Network

Amazon VPC provides the option of creating an IPsec VPN connection between remote customer networks and their Amazon VPC over the internet. Consider taking this approach when you want to take advantage of an AWS managed VPN endpoint that includes automated multi-data center redundancy and failover built into the AWS side of the VPN connection. Although not shown, the Amazon virtual private gateway represents two distinct VPN endpoints, physically located in separate data centers to increase the availability of your VPN connection.

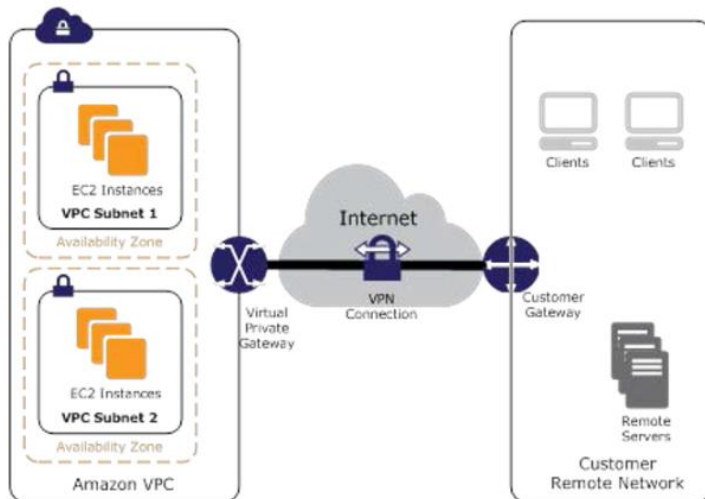


Figure: AWS managed VPN

The virtual private gateway also supports and encourages multiple user gateway connections so you can implement redundancy and failover on your side of the VPN connection

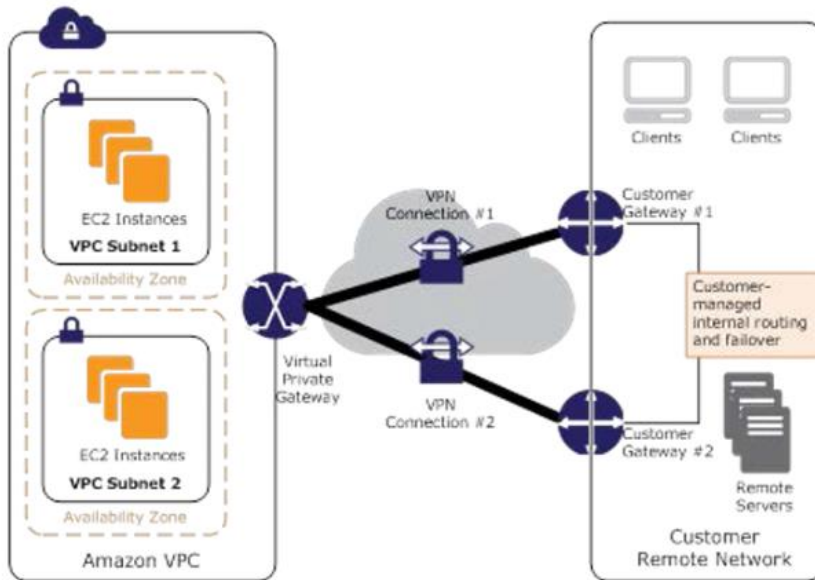


Figure: Redundant AWS managed VPN connections

## Overview of Direct Connect and Its Advantages

AWS Direct Connect is a cloud service solution that makes it easy to establish a dedicated network connection from your premises to AWS. Using AWS Direct Connect, you can establish private connectivity between AWS and your datacenter, office, or colocation environment, which in many cases can reduce your network costs, increase bandwidth throughput, and provide a more consistent network experience than Internet-based connections.

### Benefits/ Advantages

- Elastic
- Simple
- Private connectivity to your Amazon VPC
- Compatible with all AWS services
- Consistent Network performance

## Setup and Architecture of Direct Connect

