

Networking services

Episode Objective

Skills Learned

- Describe products available for [Networking](#) such as
 - [Virtual Network](#),
 - [Load Balancer](#),
 - [VPN Gateway](#),
 - [Application Gateway](#) and
 - [Content Delivery Network](#)



Service Category

Category of services with capability to

- [Connect cloud](#) and [on-premise](#) resources
- [Protect & monitor](#) services
- Help with [application delivery](#)



Azure Virtual Network

<...> VIRTUAL NETWORK

<.> SUBNET



VM

<.> SUBNET



VM

1. VNET
PEERING



2. VPN
GATEWAY

<...> VIRTUAL NETWORK

<.> SUBNET



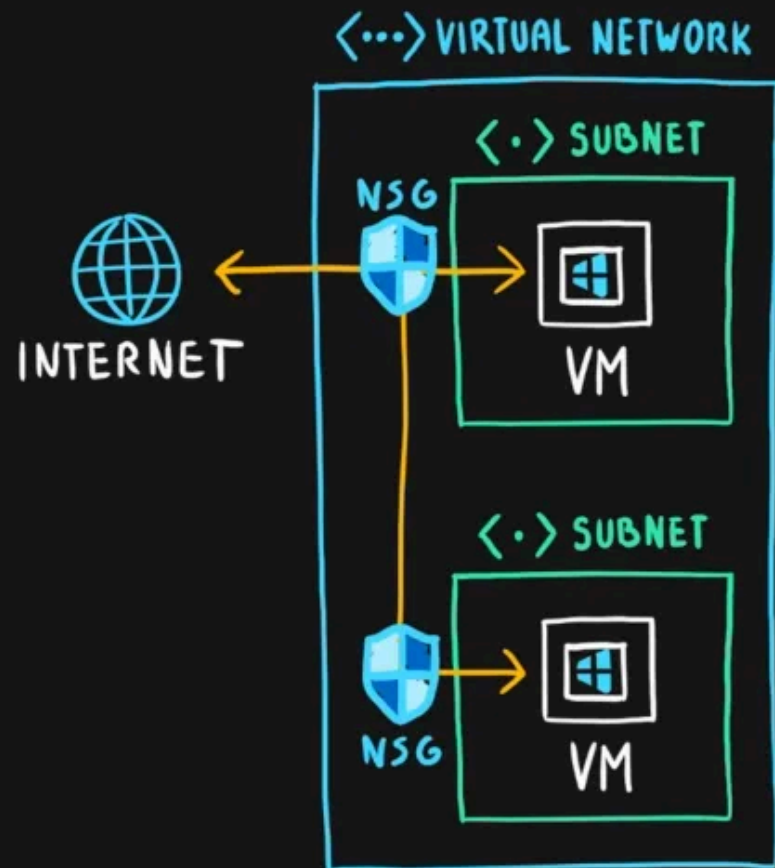
VM



VM

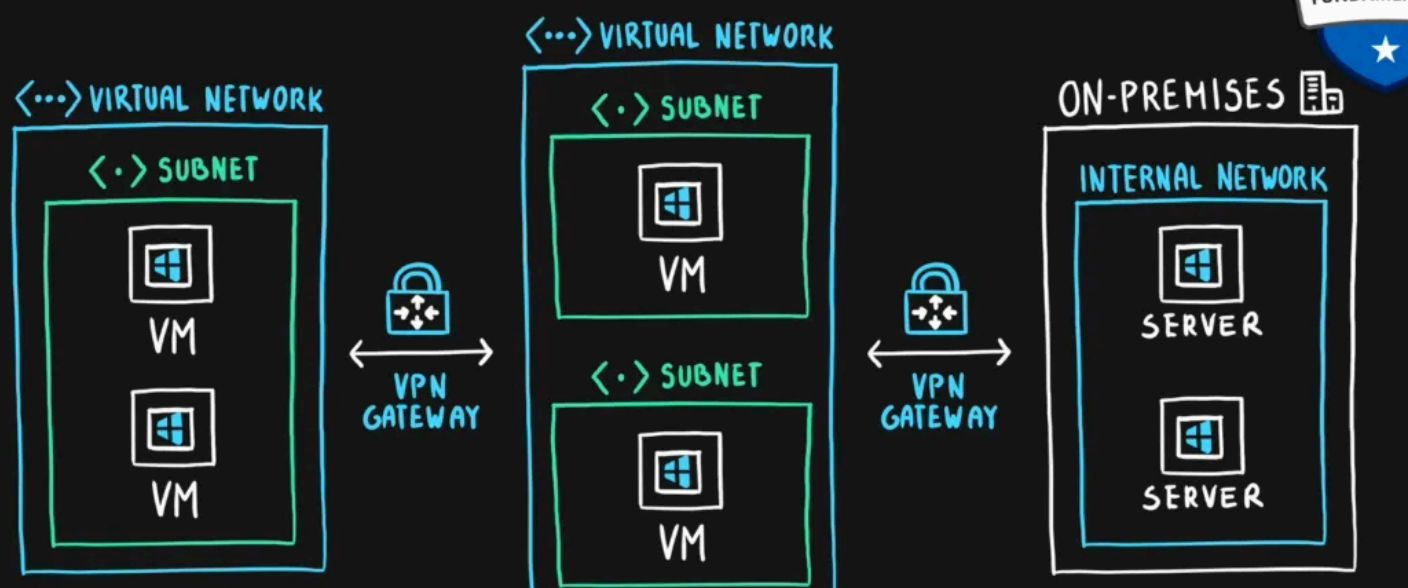
Key Characteristics

- Emulation of physical networking infrastructure
- Designed for **isolation**, **segmentation**, **communication**, **filtering**, **routing** between resources (internet and on-premises)
- Scoped to a single region
- **VNet Peering** or **VPN Gateway** allow cross VNet communication
- Segmented into one or more **subnets**
- **Subnets** are discrete sections used for
 - effective **address allocation** and
 - **network filtering** via **Network Security Groups (NSG)** or **Application Security Groups (ASG)**



Virtual Network Gateway

VPN Gateway

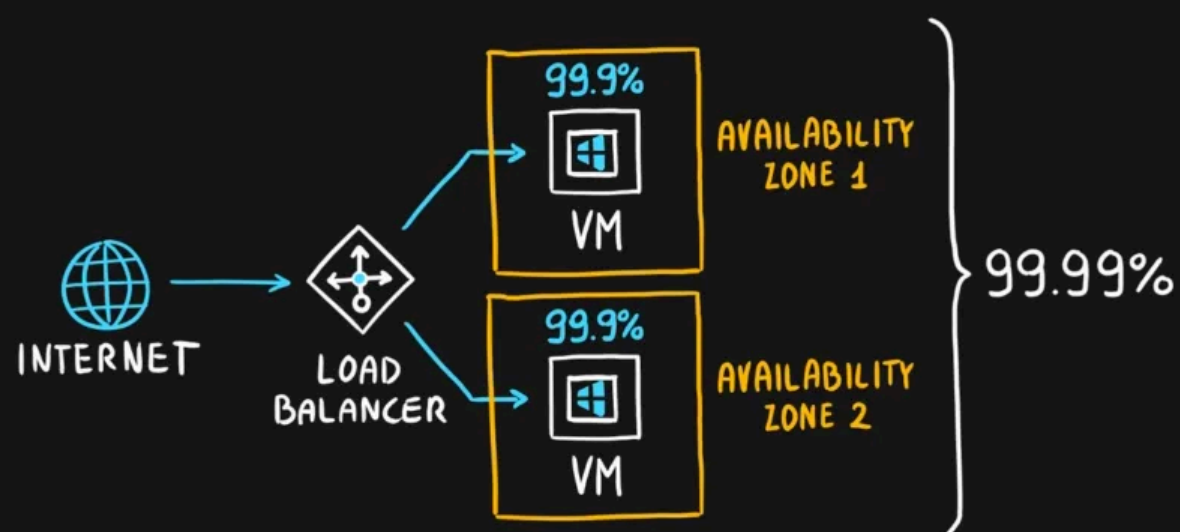


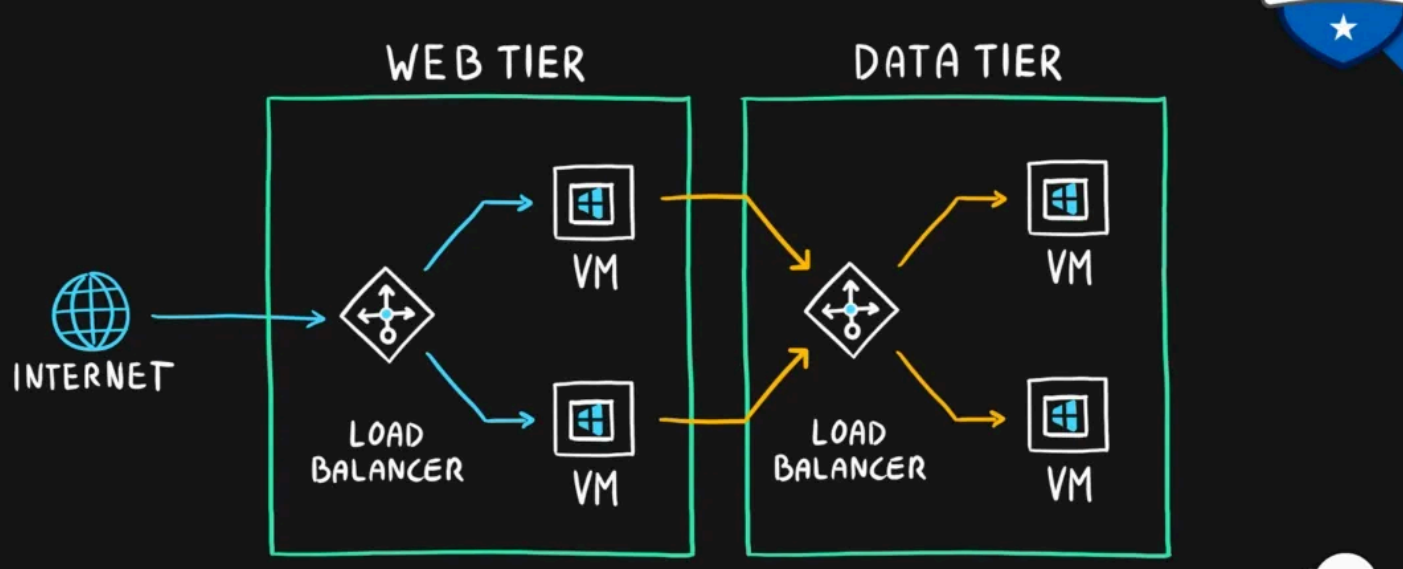
Key Characteristics

- On-premises to azure traffic over the public internet
- Cross-regional communication of azure virtual networks
 - VNet peering vs VPN gateway should be chosen based on the organization needs



Azure Load Balancer



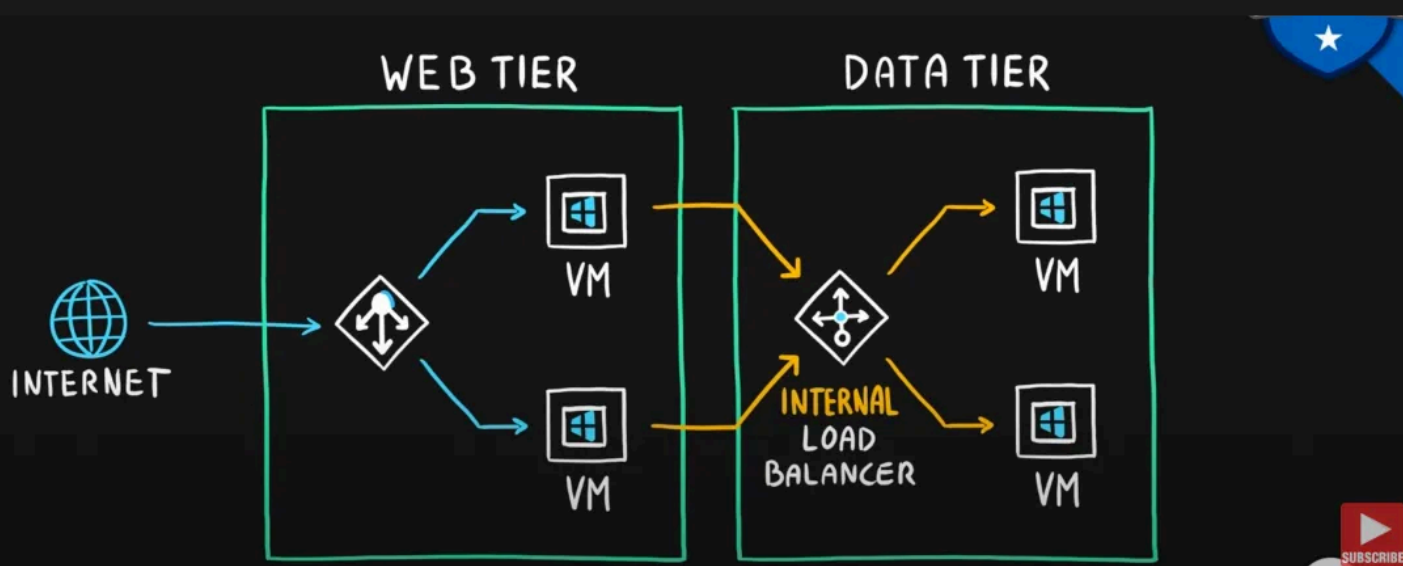
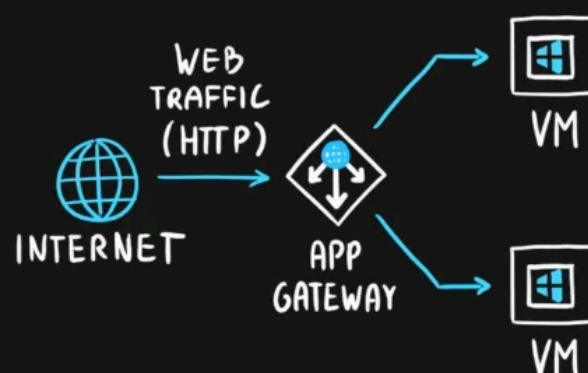


Key Characteristics

- Even traffic distribution
- Supports both **inbound** and **outbound** scenarios
- **High-availability** and **scalability** scenarios
- Both **TCP** (transmission control protocol) and **UDP** (user datagram protocol) applications
- **External** and **internal** traffic

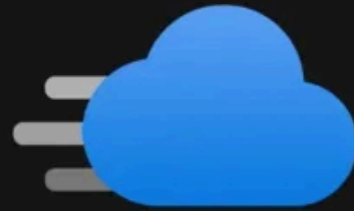
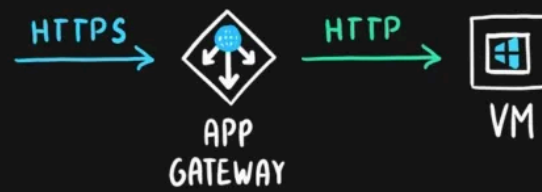


Application Gateway



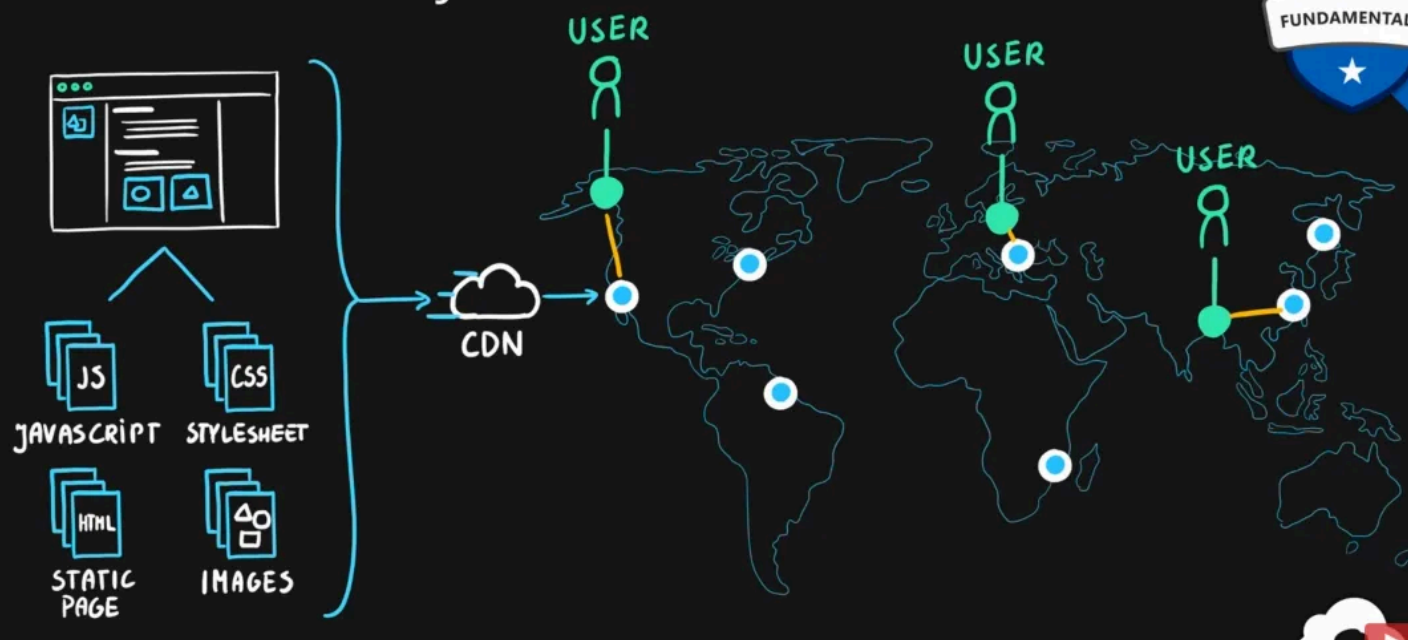
Key Characteristics

- Web traffic load balancer
- Web application firewall
- Redirection
- Session affinity
- URL Routing
- SSL termination



Content Delivery Network

Content Delivery Network



- Azure [Virtual Network](#) – Emulation/representation of physical networking in the cloud,