Azure DNS, Traffic Manager, Application Gateway, Load Balancer

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Agenda

1. Azure DNS Server
2. Azure Traffic Manager
3. Azure Application Gateways
4. Azure Load Balancer

Azure DNS Server

Azure DNS is responsible for translating (or resolving) a website or service name to its IP address

Azure DNS is a hosting service for DNS domains and it provides name resolution using Azure infrastructure

Azure DNS features:
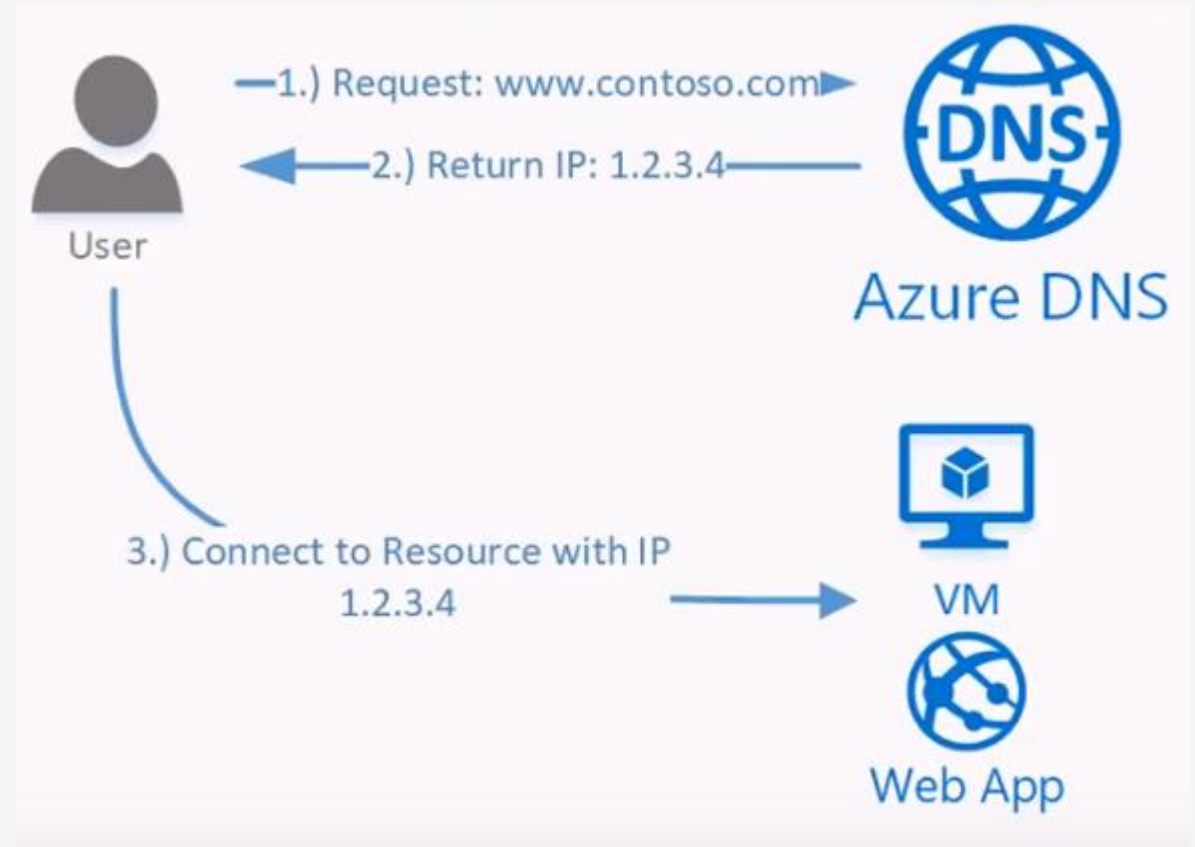
  Reliability and Performance

  Seamless Integration

  Security

DNS Zones Limitation

  Zones per subscription: 100

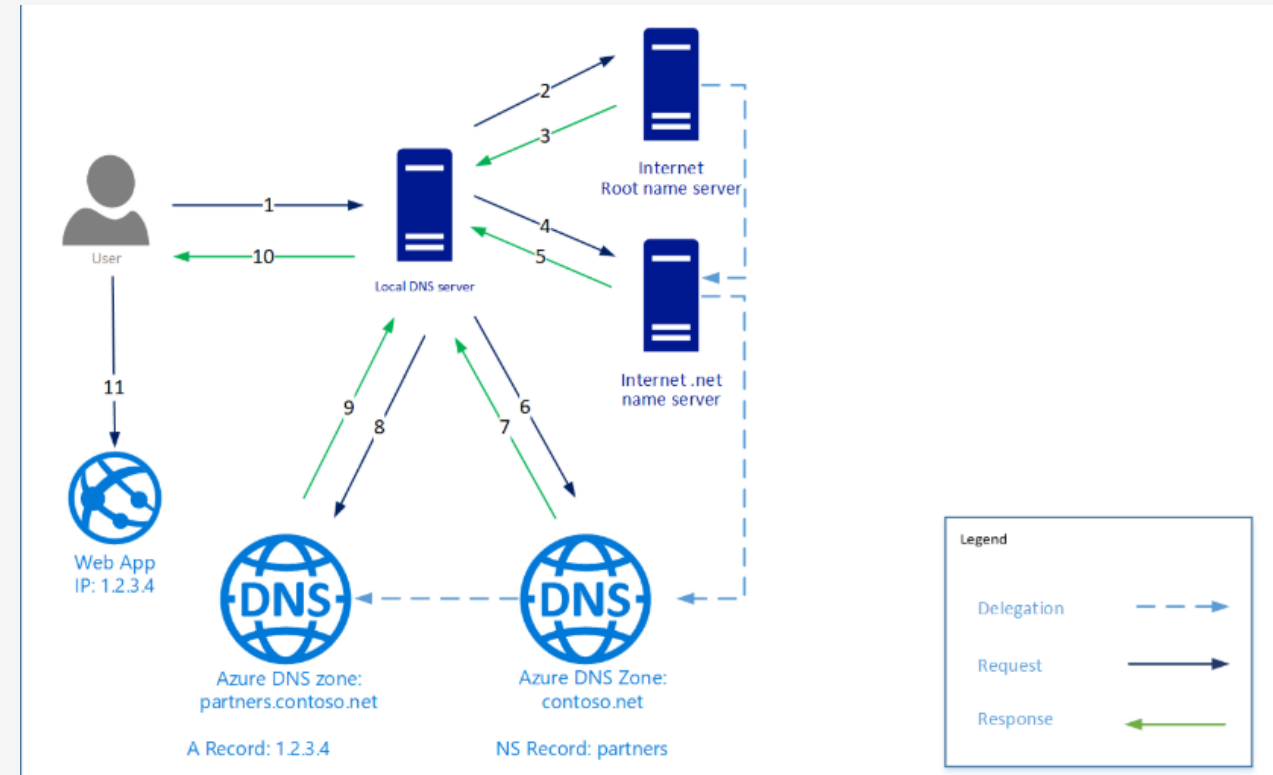 Record Set per Zones: 5000

  Records per Record Set: 20

Types of DNS Servers

DNS Recursive Resolver / DNS resolver

Root Name Server

Top Level Domain / TLD name Server

Authoritative name Server

Azure Traffic Manager

Azure Traffic Manager allows us to control the distribution of user traffic. It can be used with Azure as well as external non-azure endpoints

Supported Traffic Manager Endpoints

Azure endpoints: Used for services hosted in Azure. Ex: VMs, Web Apps and cloud Services

External Endpoints: used for services hosted in on-premises or with a different hosting provider

Nested endpoints: Used to combine Traffic Manager profiles to create more flexible traffic-routing schemes to support the needs of larger, more complex deployments.
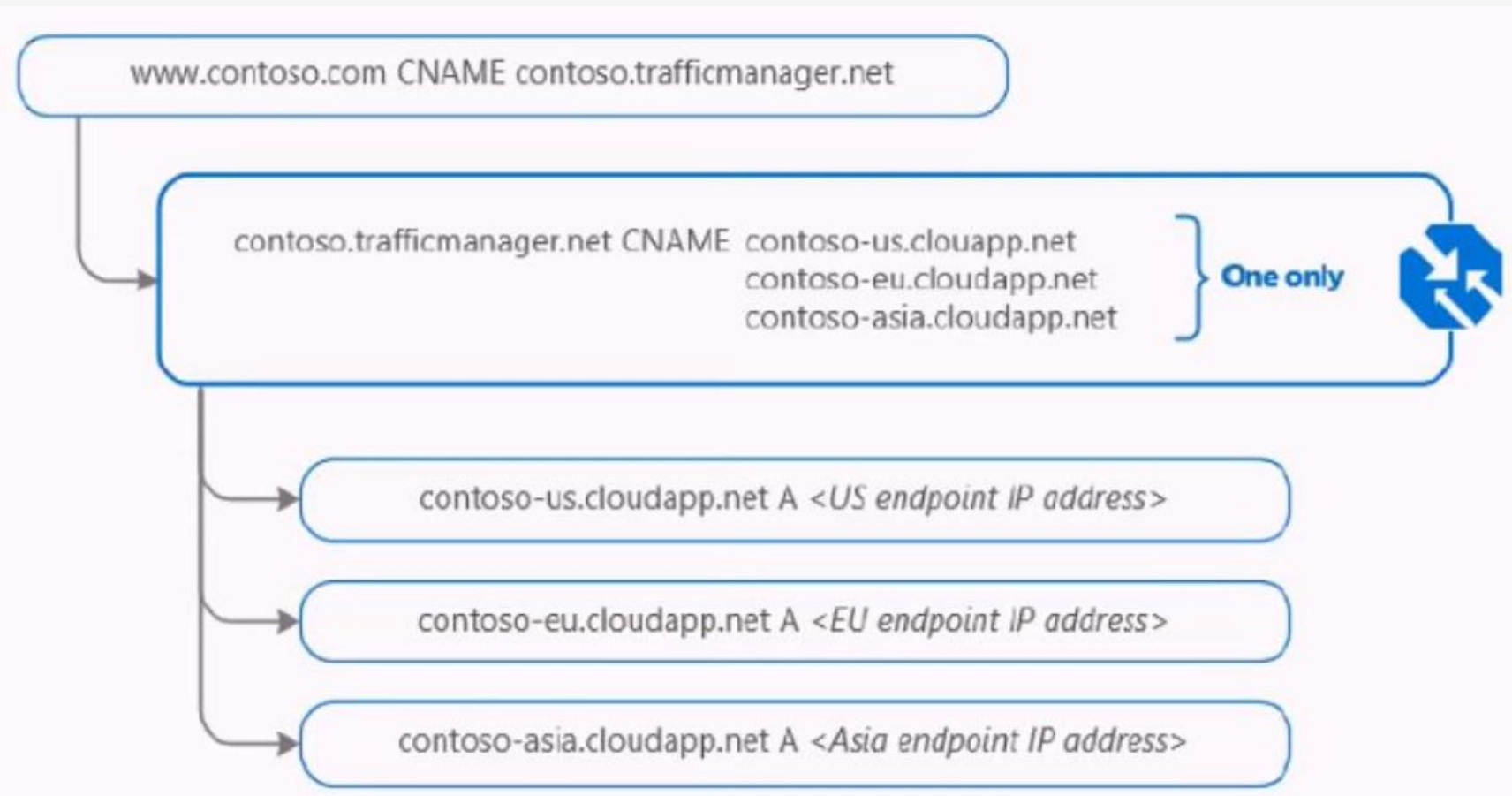
Features:

Traffic Manager improve availability of critical applications
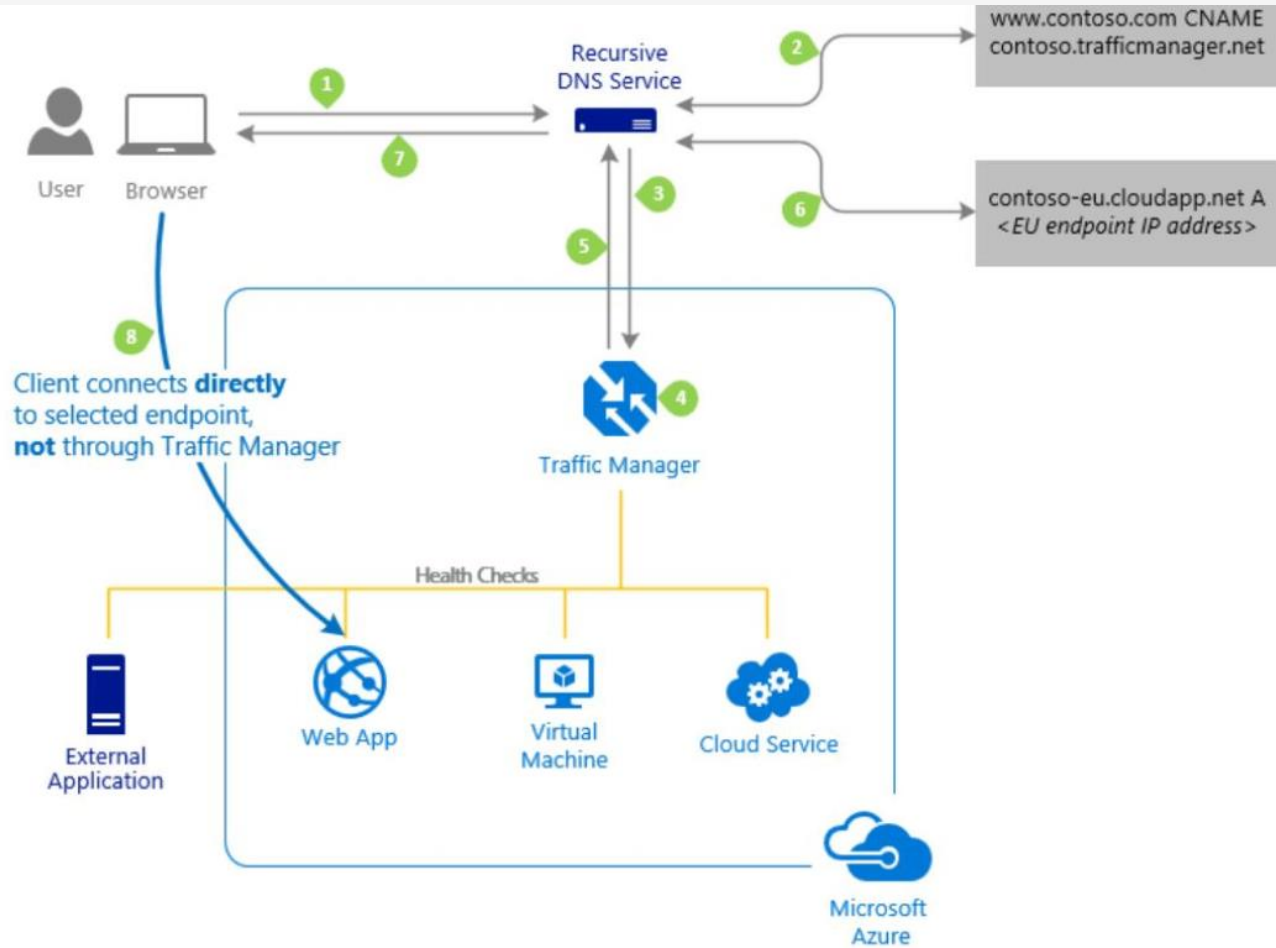
Help maintain services without downtime

Allows traffic distribution between on-premises and cloud based application

Azure Traffic Manager

Azure Traffic Manager

Azure Application Gateway

Application Gateway is providing application delivery controller (ADC) as a service

Supports **Layer 7 load balancing** capabilities for our application

Optimizes web farm productivity by **offloading** CPU intensive **SSL termination** to the application gateway

It can be configured as internet facing gateway, internal only gateway or a combination of both.

Application gateway Features:

Web Application Firewall

HTTP Load Balancing

Cookie-based session affinity

Secure Socket layer (SSL) offload

End to End SSL

URL-based content routing
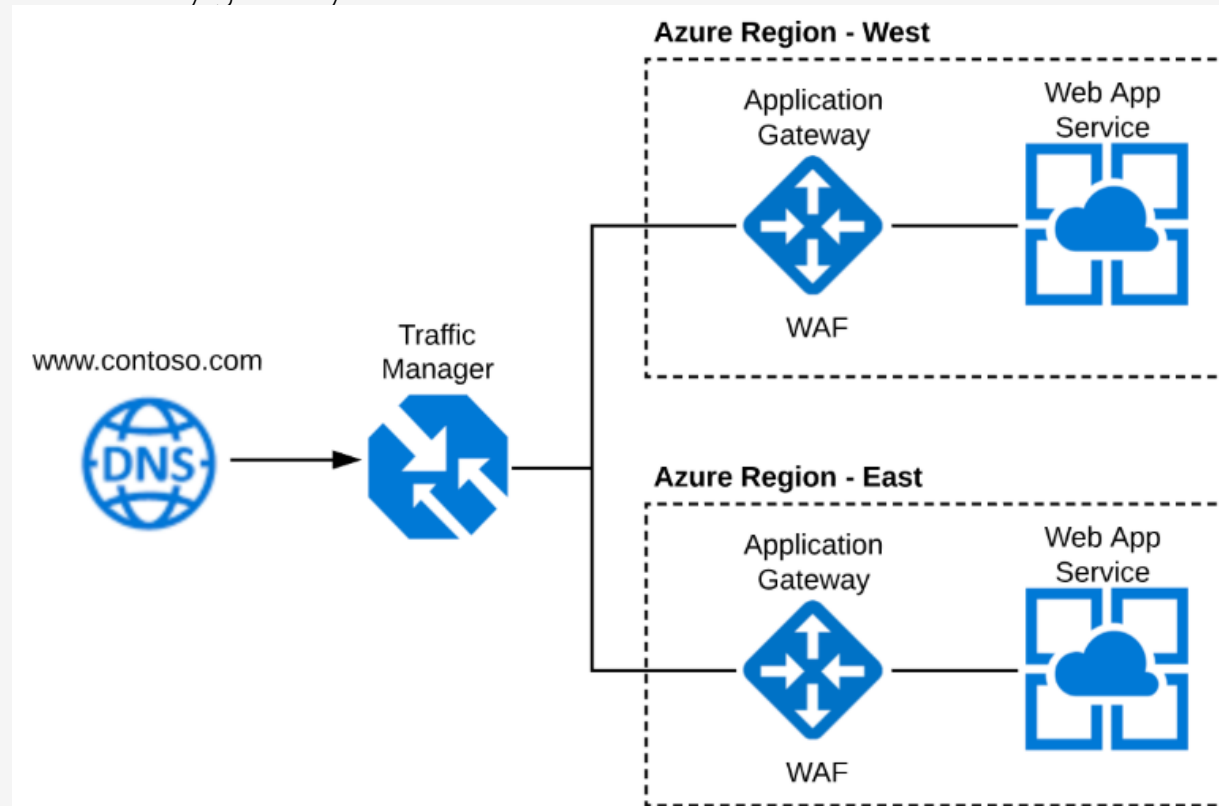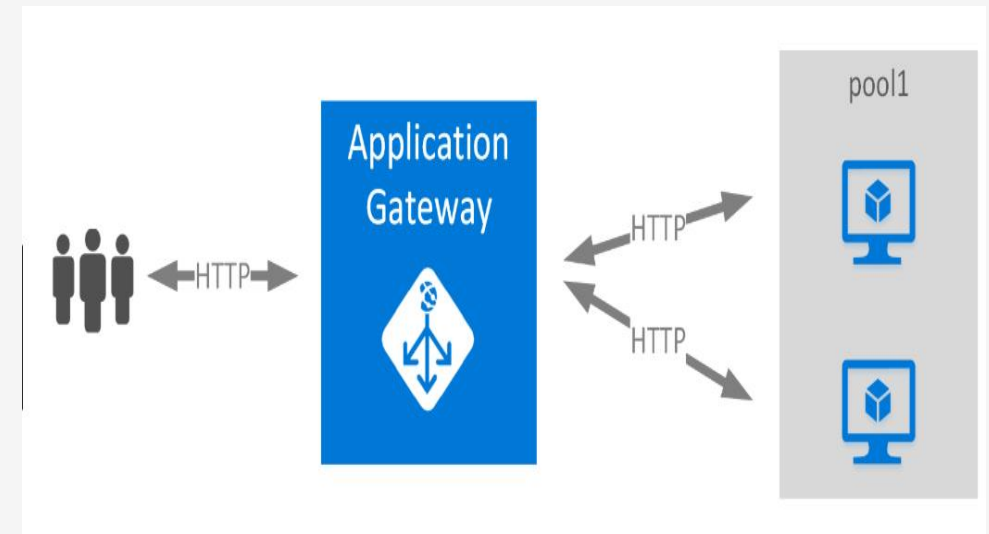
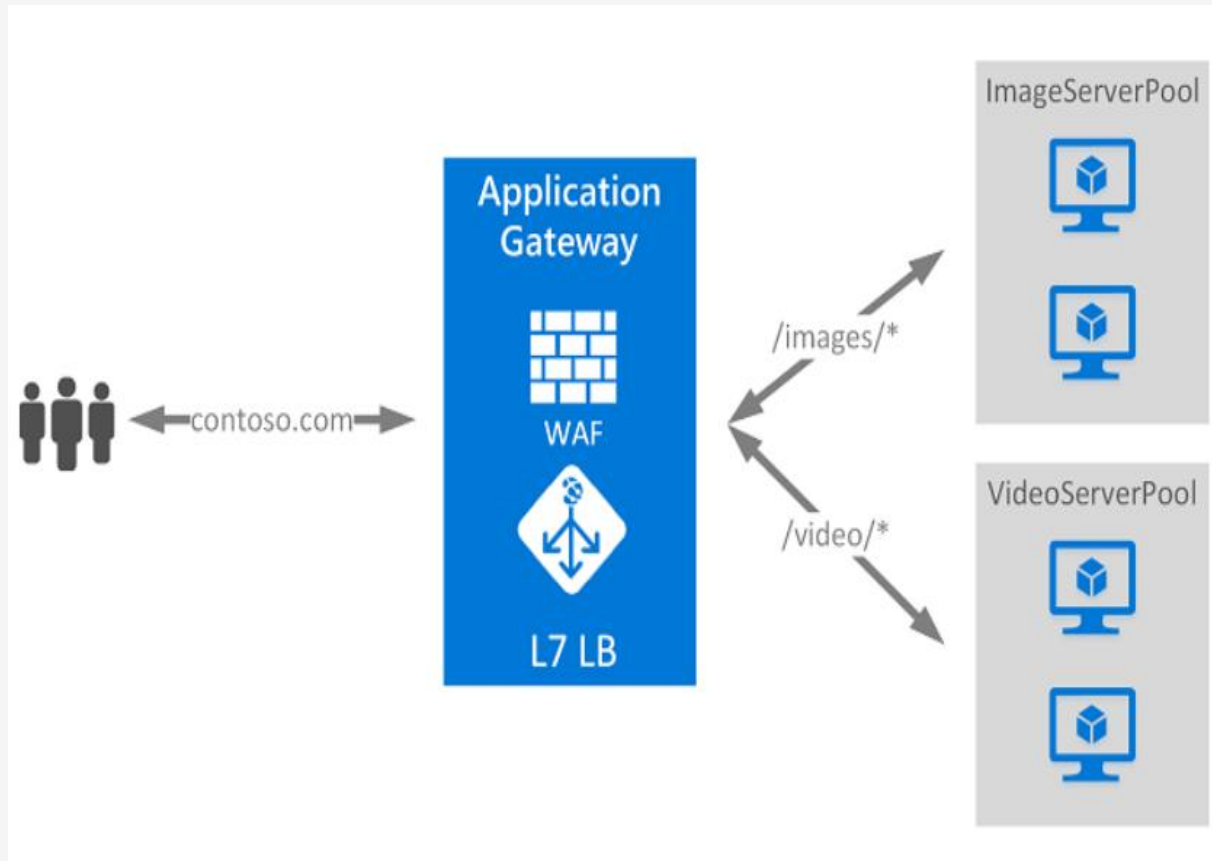Multi-Site routing

Web Socket Support

Health Monitoring

Request Redirect

Advanced diagnostics

Azure Application gateway

Azure Load Balancer

The Azure Load Balancer delivers high availability and network performance to your applications. It is a **Layer 4 (TCP, UDP)** load balancer

Internet LB: Azure load balancer maps the public IP address and port number of incoming traffic to the private IP address and port number of the virtual machine

Internal LB (ILB): ILB directs traffic only to resources inside the cloud service or using VPN to access the azure infrastructure.

VIPs of a cloud service or a virtual network will never be directly exposed to an internet endpoint

It enables internal line of business (LOB) applications to run in Azure and be accessed from within the cloud or from resources on-premises
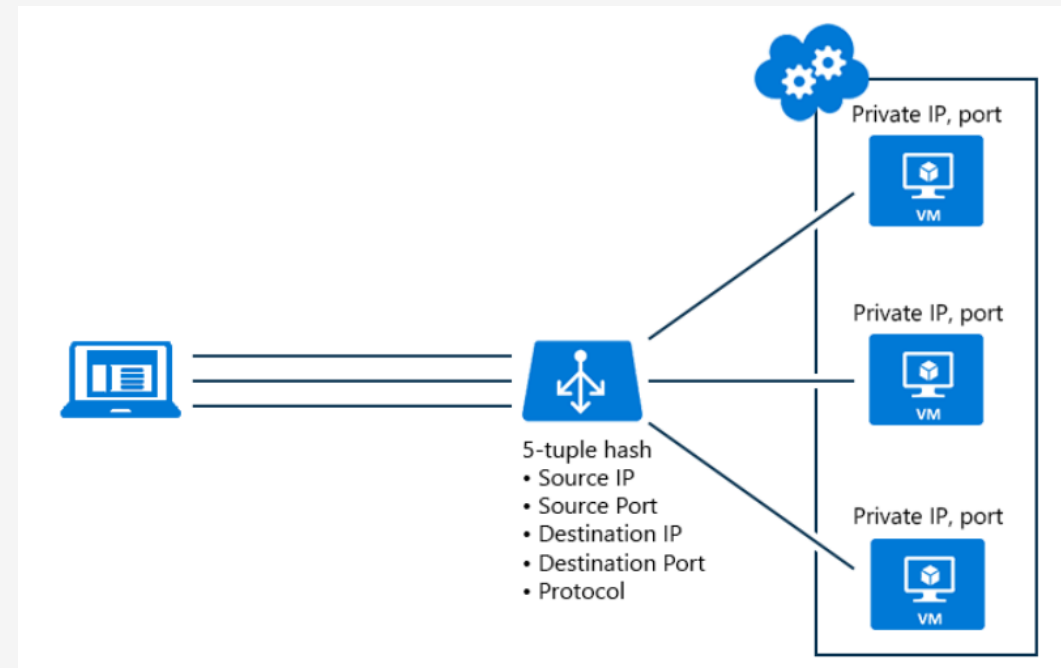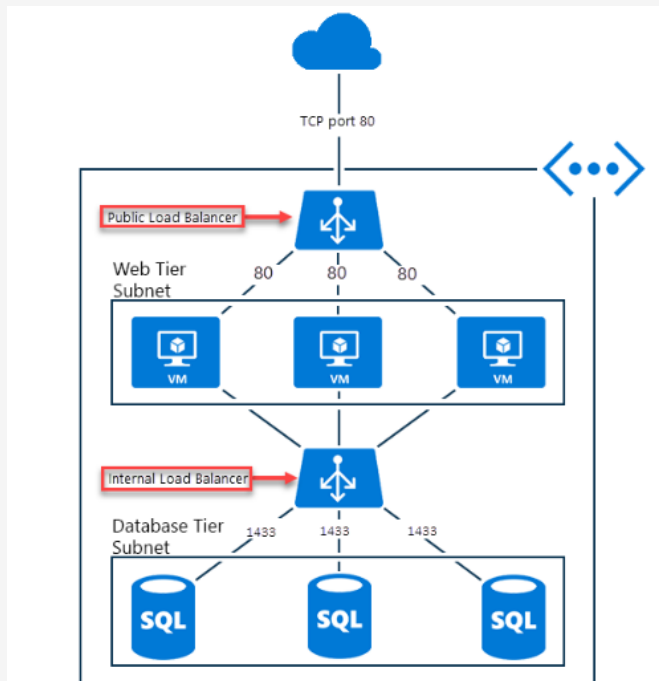
Questions?

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