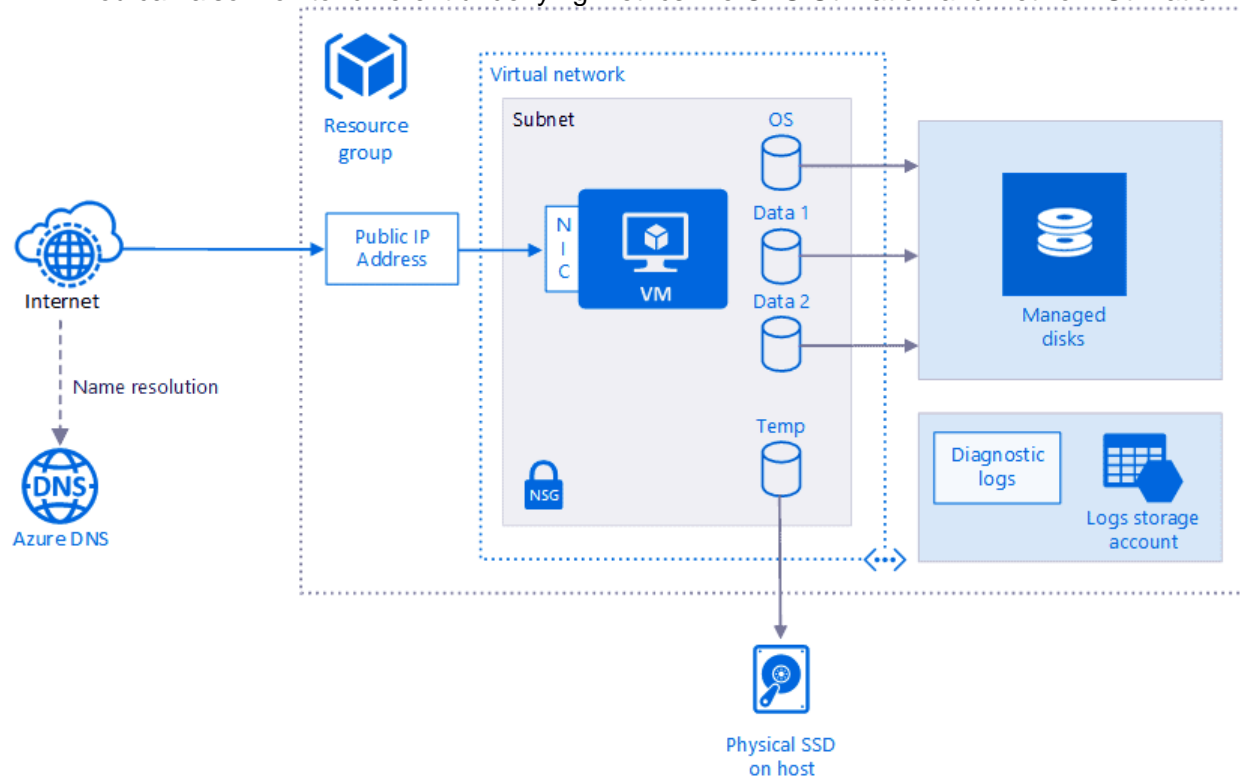# What is Azure Computing

Azure Virtual Machine

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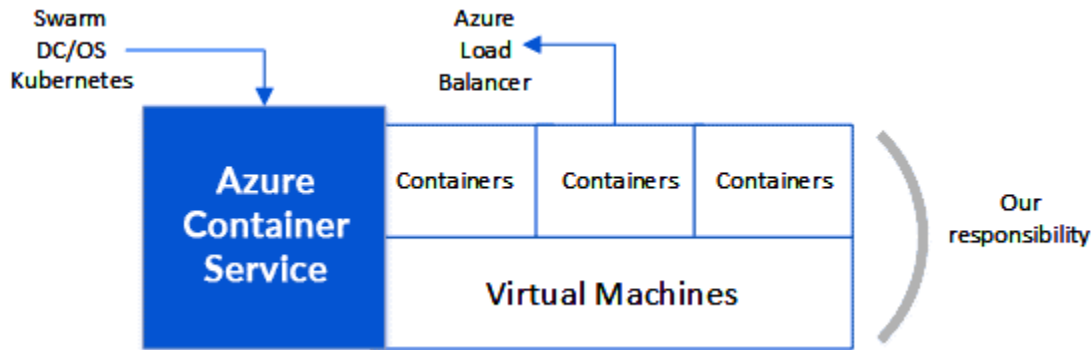- The virtual machine can have multiple disks and these disks are VHD files

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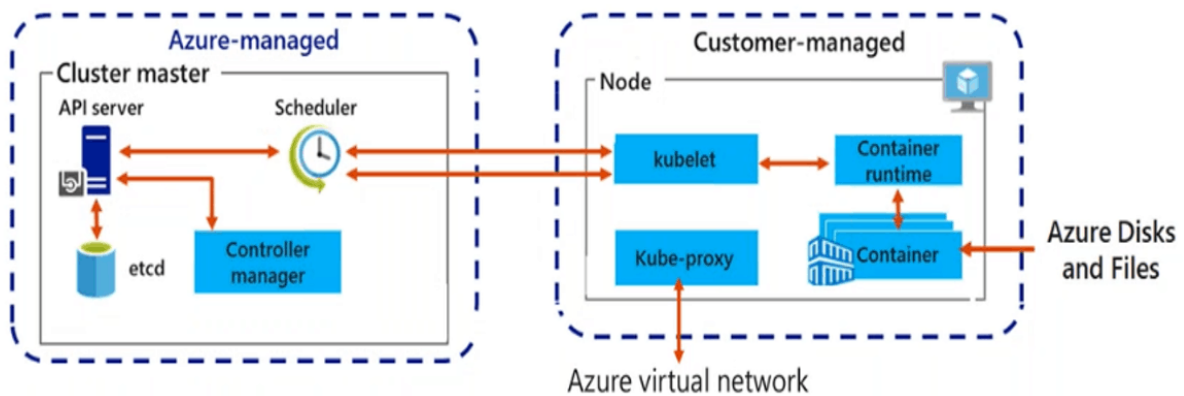

Azure Container Instances

Containers are used for deploying **Microservices** applications in an easy way. It's difficult to talk about microservices without talking about containers. Azure Container Instances (ACI) offers the fastest and simplest way to run a container in Azure. You don't have to manage any virtual machines or configure any additional services. It is a PaaS offering that allows you to upload your containers and execute them directly with an automatic elastic scale.

Azure Kubernetes Service (AKS)

Azure Kubernetes Service (AKS) is a managed **Kubernetes service** in which the master node is managed by Azure and end-users manages worker nodes. Users can use AKS to deploy, scale, and manage Docker containers and container-based applications across a cluster of container hosts. As a managed **Kubernetes service AKS is free** – you only pay for the worker nodes within your clusters, not for the masters. You can create an AKS cluster in the Azure portal, with the Azure CLI, or template-driven deployment options such as Resource Manager templates and Terraform.

Azure App Service

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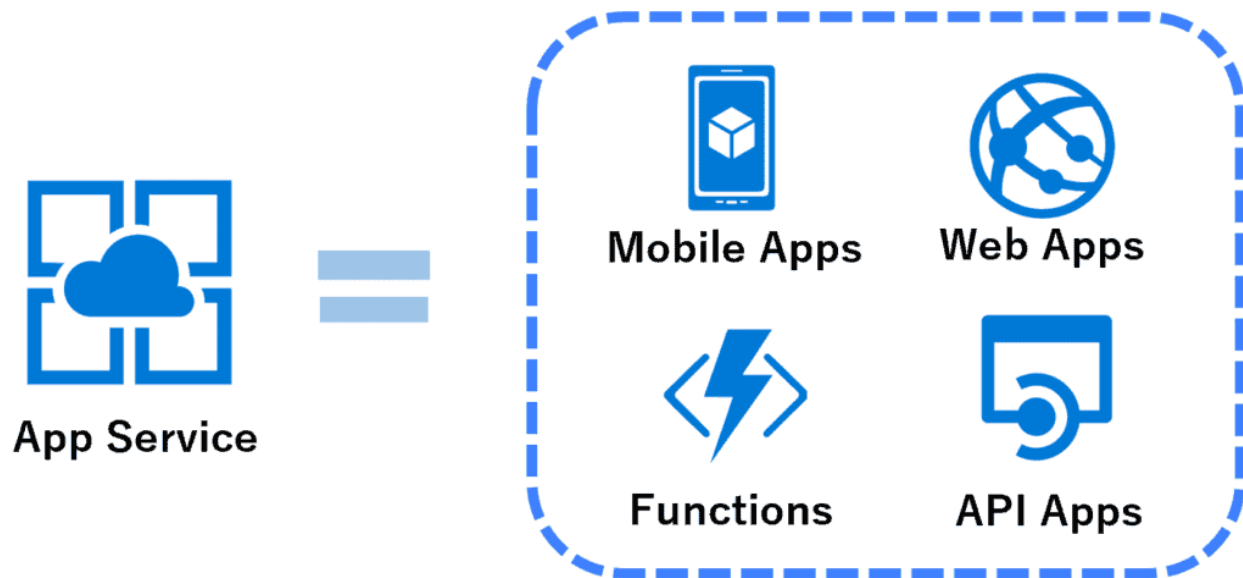
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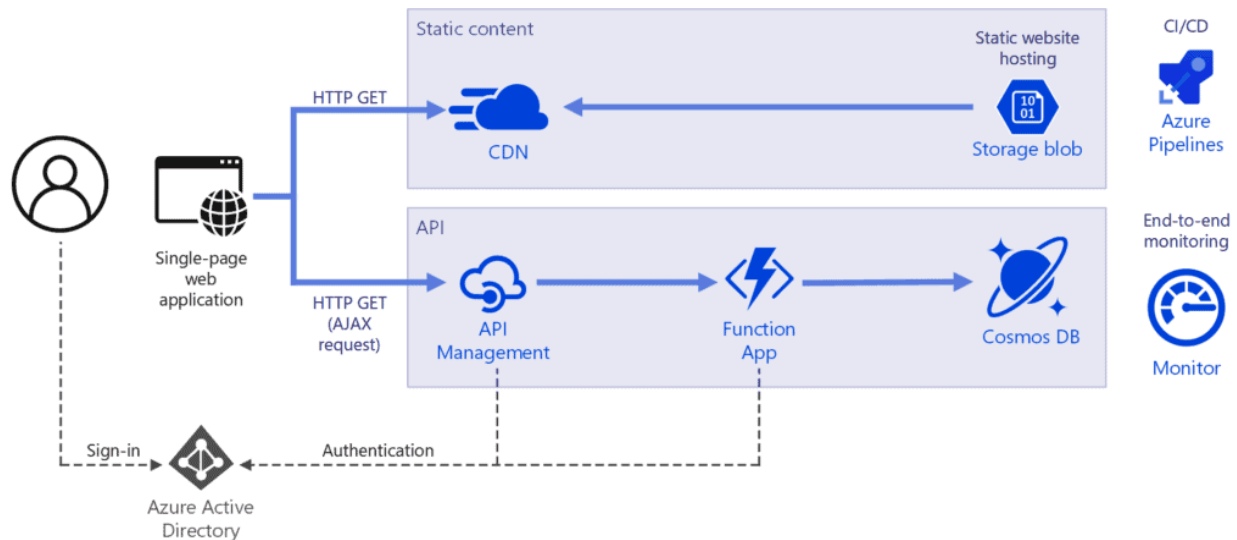
Benefits Of Azure App Service

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Azure Serverless Computing

What if you spending all your time in building and deploying the app and none of your time managed in your servers, Serverless computing lets you do just that because the infrastructure that you need to run and scale apps is managed for you by a third party like cloud AWS and GCP. So you only focus on creating and deploying apps.

Serverless computing doesn't mean there is no server, Of course, there is a server but you don't have to worry about that in serverless computing, infrastructure is managed for you. Serverless computing is an abstraction of servers, OS, and infrastructure. It is driven by reaction to events in triggers in near real-time. Service Bus, Event Grid, Azure Function, Logic Apps are a part of serverless computing.
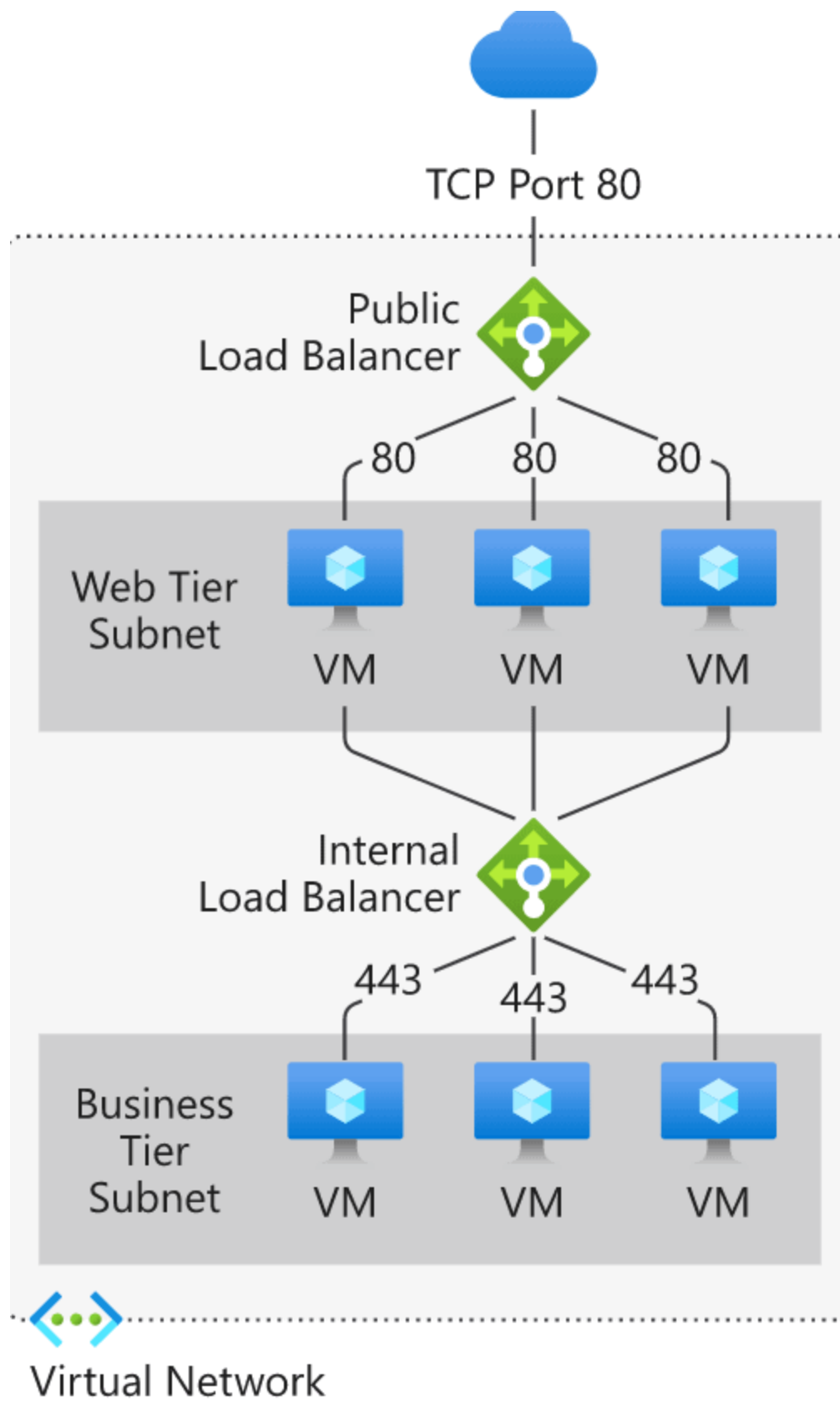
Network Watcher In Azure

Azure Network Watcher provides tools to monitor, diagnose, view metrics, and enable or disable logs for resources in an Azure virtual network. Network Watcher is designed to monitor and repair the network health of IaaS (Infrastructure-as-a-Service) products which includes Virtual Machines, Virtual Networks, Application Gateways, Load balancers, etc. Note: It is not intended for and will not work for PaaS monitoring or Web analytics.
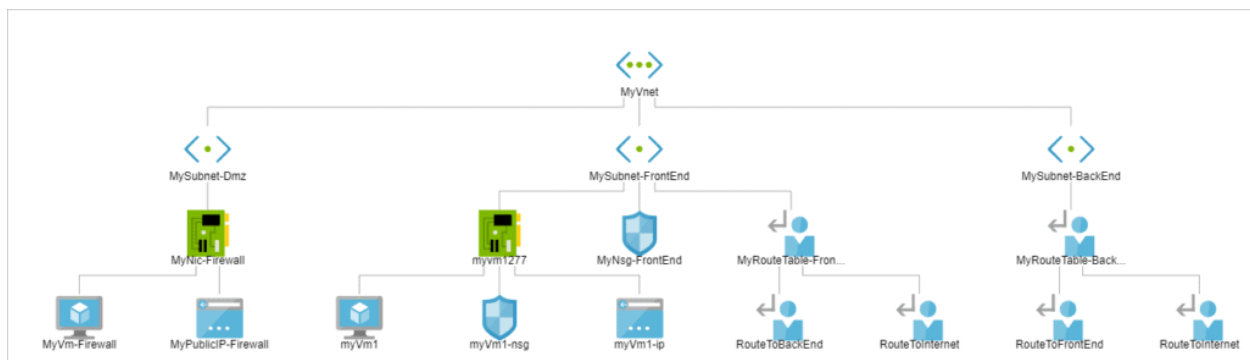
Load Balancer And Traffic Manager In Azure

In this guide, you will see how to create a load balancer and traffic manager in Azure. *Load balancing* refers to evenly distributing load (incoming network traffic) across a group of backend resources or servers. Azure Traffic Manager is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions while providing high availability and responsiveness.

TCP Port 80

Public
Load Balancer

80 80 80

Web Tier
Subnet

VM VM VM

Internal
Load Balancer

443 443 443

Business
Tier
Subnet

VM VM VM

Virtual Network

A Container Instance In Azure

What Is Container (Docker)?

Containers are a software package into a logical box with everything that the application needs to run. That includes a thin layer of blog operating system, application code, runtime, system tools, system libraries, and etc. Docker containers are built off Docker images. Since images are read-only, Docker adds a read-write file system over the read-only file system of the image to create a container.

Azure Container Registry (ACR)

Azure Container Registry permits you to create, store, and manage **container** images in a private **registry** for all types of **container** deployments. You can use **Azure container registries** with your existing **container** development and deployment pipelines.

Azure Container Instances (ACI)

Azure Container Instances (ACI) is Microsoft [PaaS (Platform as service)](#) solution that offers the fastest and simplest way to run a container in Azure, without having to manage any underlying infrastructure. For container orchestration in Azure (build, manage, and deploy multiple containers) use **Azure Kubernetes Service (AKS)**. You can deploy Azure Container Instances using Azure Portal, Azure CLI, Powershell, or ARM Template.
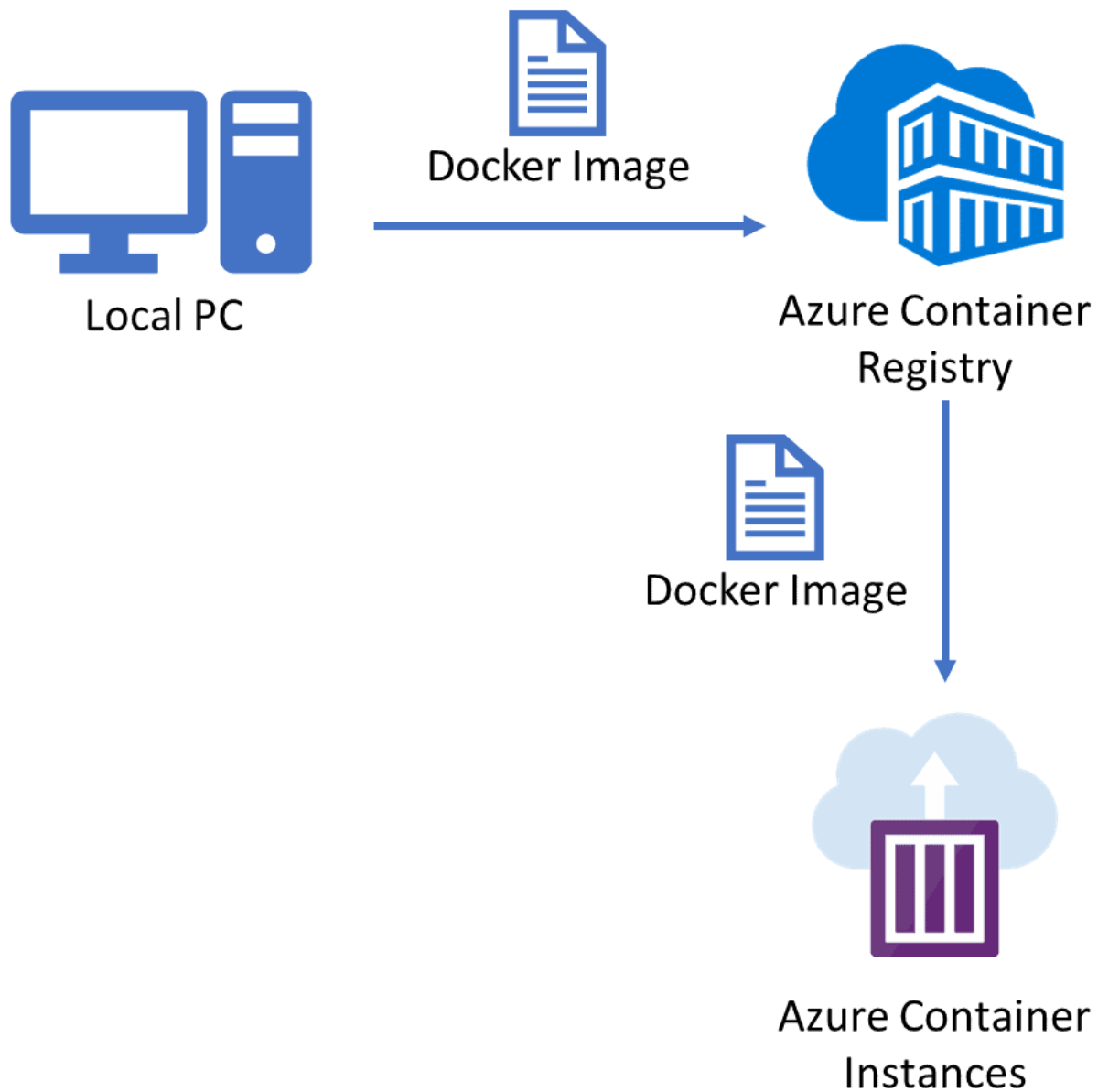
What Are ARM And ARM Templates?

ARM is an Azure Resource Manager. It is an interface for managing and organizing cloud resources. The Azure Resource Manager(ARM) is what organizes the resource group that lets you deploy, manage, and delete all of the resources together in a single action.

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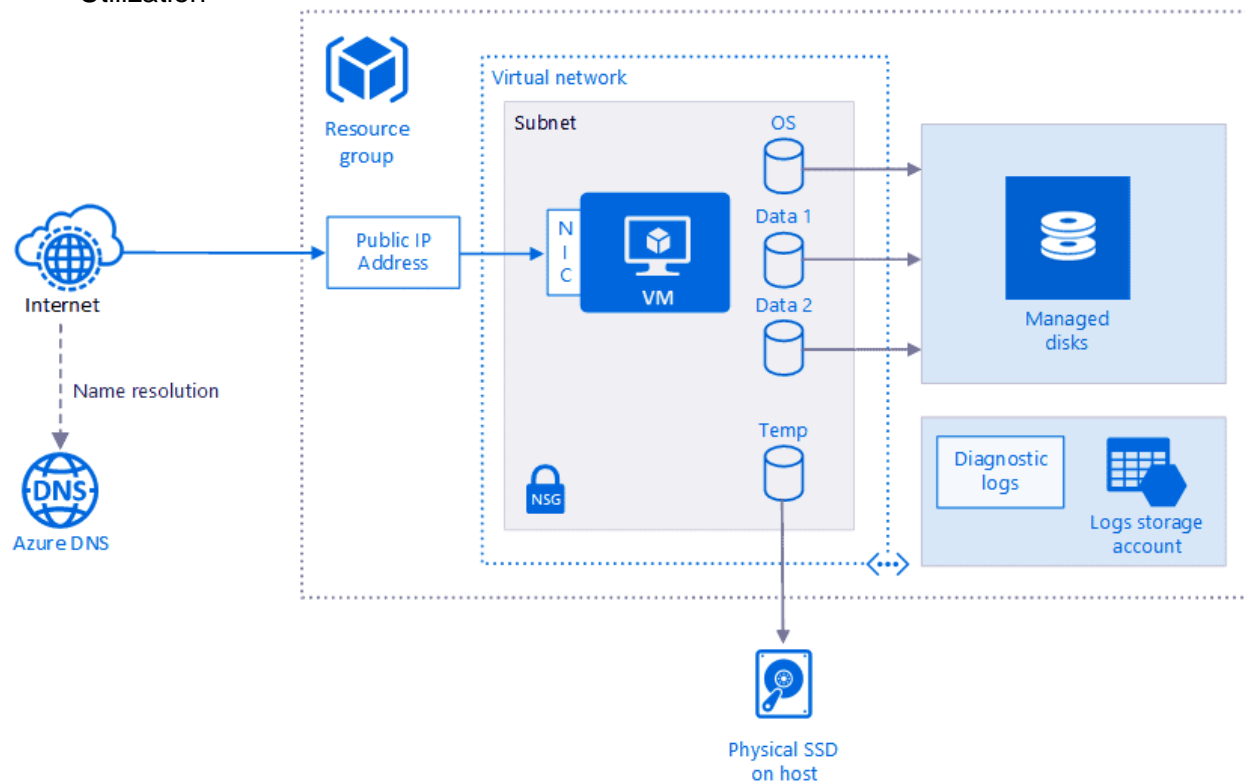# Azure Compute Options: What is Azure Computing?

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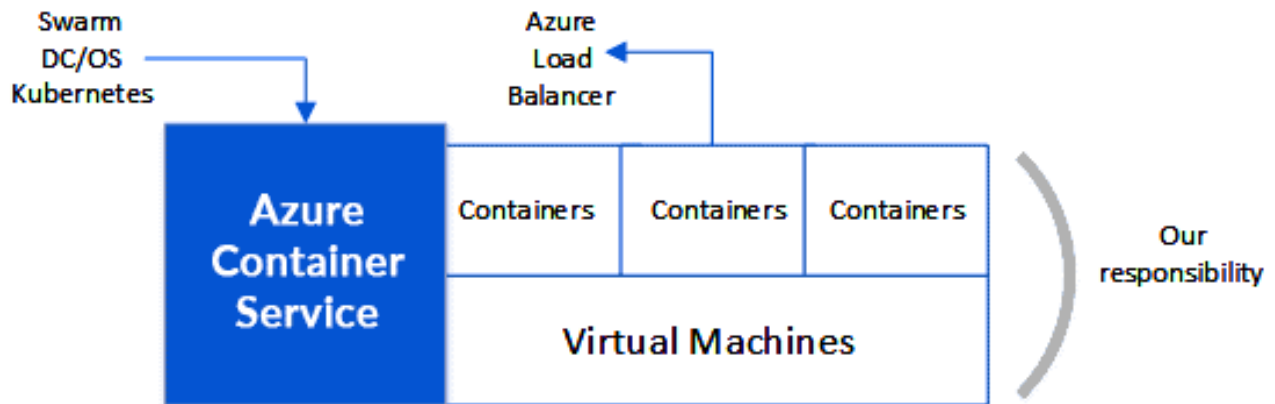- The virtual machine can have multiple disks and these disks are VHD files

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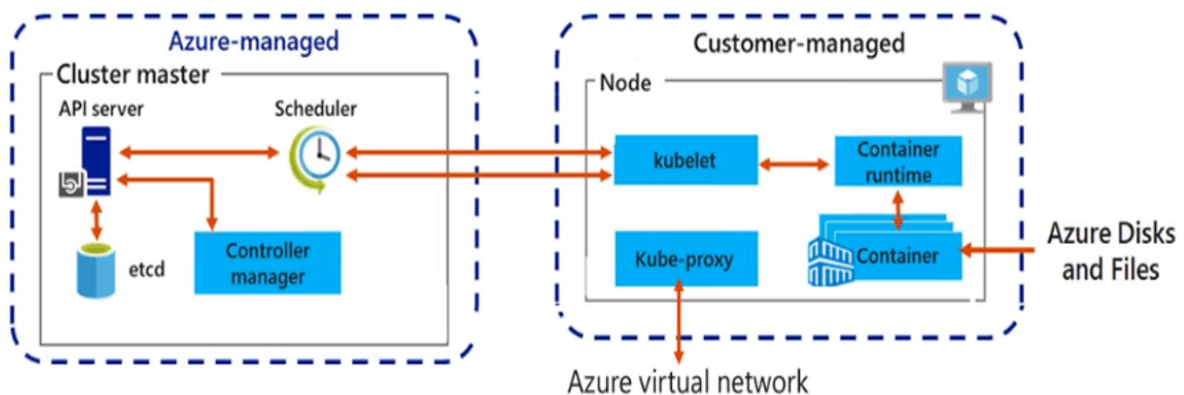

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Check out: Our previous blog post on What Are Containers?

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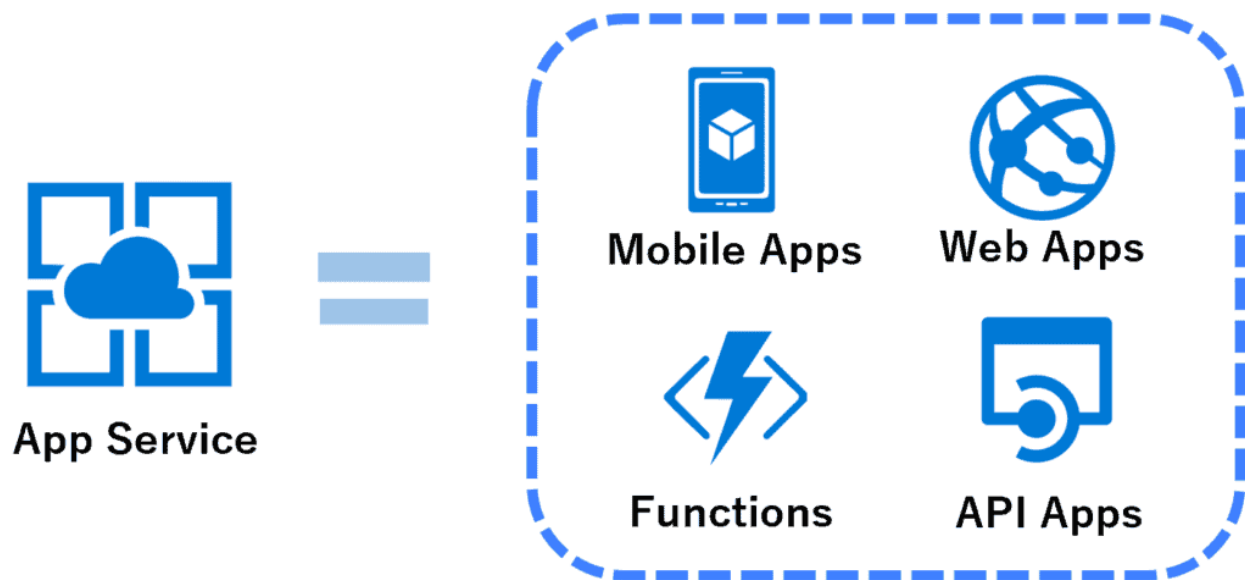

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Static content

HTTP GET

CDN

Static website hosting

Storage blob

API

HTTP GET (AJAX request)

API Management

Function App

Cosmos DB

Single-page web application

Sign-in

Authentication

Azure Active Directory

CI/CD

Azure Pipelines

End-to-end monitoring

Monitor