

Azure Architecture Best Practices



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Resources for Today's Talk

Azure Architecture Center

<https://docs.microsoft.com/en-us/azure/architecture/>

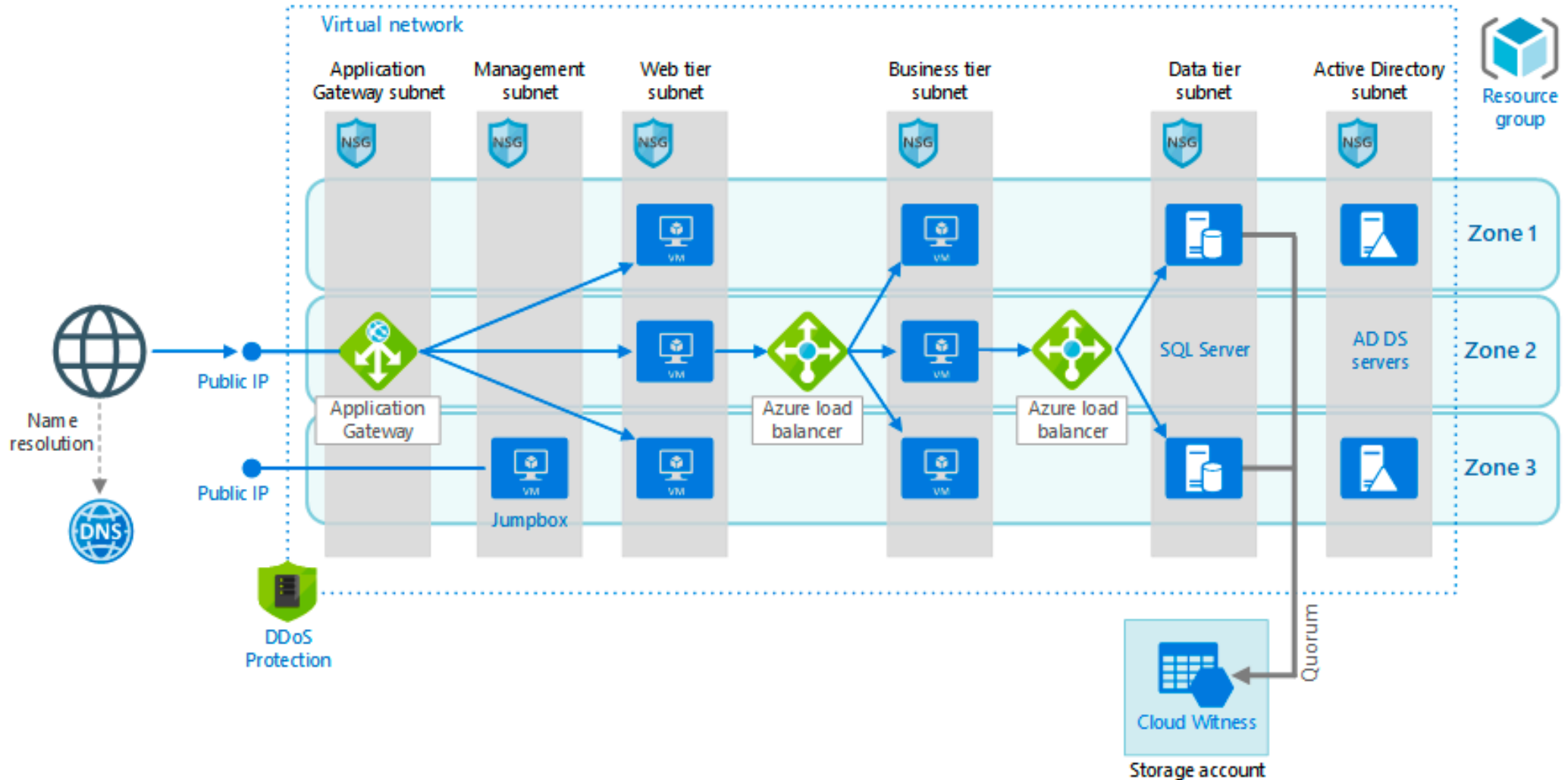
Microsoft Azure Well-Architected Framework

<https://docs.microsoft.com/en-us/azure/architecture/framework/>

Microsoft Cloud Adoption Framework for Azure

<https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/>

Reliability



<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/n-tier/n-tier-sql-server>

Reliability

- Eliminate Single Points of Failure
- Build an architecture that can recover from failure
- Understand Composite SLAs

<https://docs.microsoft.com/en-us/azure/architecture/framework/resiliency/overview>

Operational Excellence

- Design, build, and orchestrate with modern practices
- Use automation to reduce effort and error
- Use monitoring and analytics to gain operational insights
- Testing for functionality and security

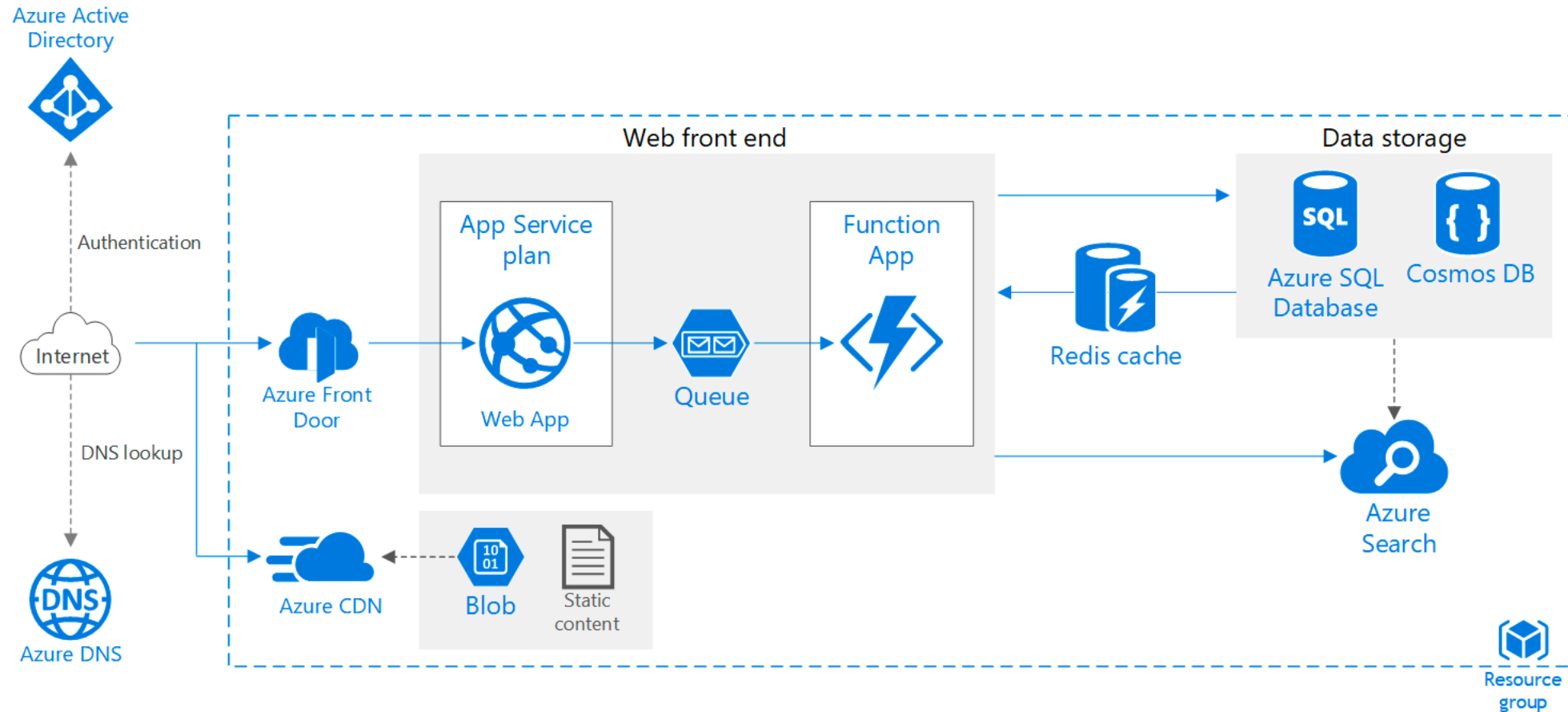
<https://docs.microsoft.com/en-us/azure/architecture/checklist/dev-ops>

Performance Efficiency

- Understand your scalability options (scale up and scale out)
- Optimize network performance (accelerated networking, CDN, loose coupling)
- Optimize storage performance (caching, tiering)
- Identify performance bottlenecks in your application

<https://docs.microsoft.com/en-us/azure/architecture/framework/scalability/performance-efficiency>

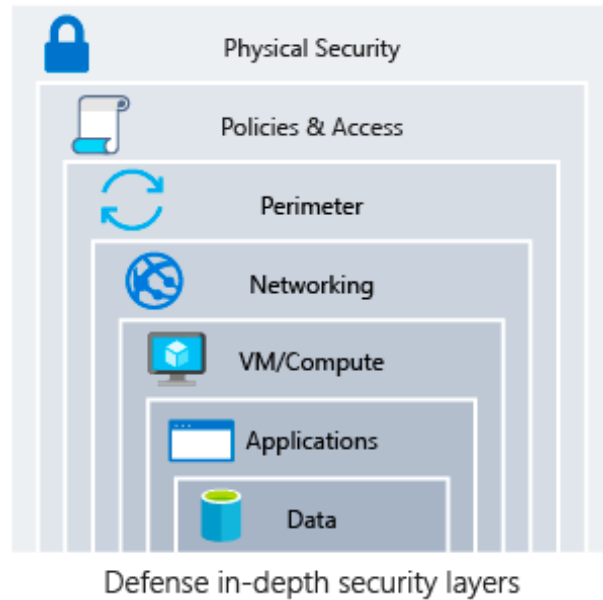
Performance Efficiency



<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/app-service-web-app/scalable-web-app>

Security

- Defense in depth
- Shared security responsibility



Responsibility	On-prem	IaaS	PaaS	SaaS
Data governance & rights management	Customer	Customer	Customer	Customer
Client endpoints	Customer	Customer	Customer	Customer
Account & access management	Customer	Customer	Customer	Customer
Identity & directory infrastructure	Customer	Customer	Shared	Shared
Application	Customer	Customer	Shared	Microsoft
Network controls	Customer	Customer	Shared	Microsoft
Operating system	Customer	Customer	Microsoft	Microsoft
Physical hosts	Customer	Microsoft	Microsoft	Microsoft
Physical network	Customer	Microsoft	Microsoft	Microsoft
Physical datacenter	Customer	Microsoft	Microsoft	Microsoft

■ Microsoft ■ Customer

Cost Optimization

- Provision with optimization (e.g. IaaS to PaaS)
- Use monitoring and analytics to gain cost insights
- Can non-production environments unused outside business hours can be shut down to reduce costs?
- You should regularly review your bills to identify any abnormalities in your spend, as well as identifying areas where you can reduce costs.
- Continuous monitoring will give you data you can use to find cost savings.

<https://docs.microsoft.com/en-us/azure/architecture/framework/cost/design-checklist>

Well-Architected Review

Welcome to Microsoft Assessments

Customers can evaluate their business strategies and receive curated guidance from Microsoft Assessments.

Available assessments

Cloud Journey Tracker

Identify your cloud adoption path based on your needs with this tracker and navigate to relevant content in the Cloud Adoption Framework for Azure. [15 mins]

Governance Benchmark

Identify gaps in your organizations current state of governance. Get a personalized benchmark report and curated guidance on how to get started. [30 mins]

Microsoft Azure Well-Architected Review

Examine your workload through the lenses of reliability, cost management, operational excellence, security and performance efficiency [20 minutes].

Strategic Migration Assessment and Readiness Tool

Preparing for a scale migration is critical to ensure your project is executed smoothly and that you realize intended benefits [10 mins]

<https://docs.microsoft.com/en-us/assessments/>

Microsoft Cloud Adoption Framework for Azure

Microsoft Cloud Adoption Framework for Azure

The Cloud Adoption Framework is a collection of documentation, implementation guidance, best practices, and tools that are proven guidance from Microsoft designed to accelerate your cloud adoption journey.



GET STARTED

Start your cloud journey



DOWNLOAD

Find cloud adoption tools and templates



OVERVIEW

What is the Cloud Adoption Framework



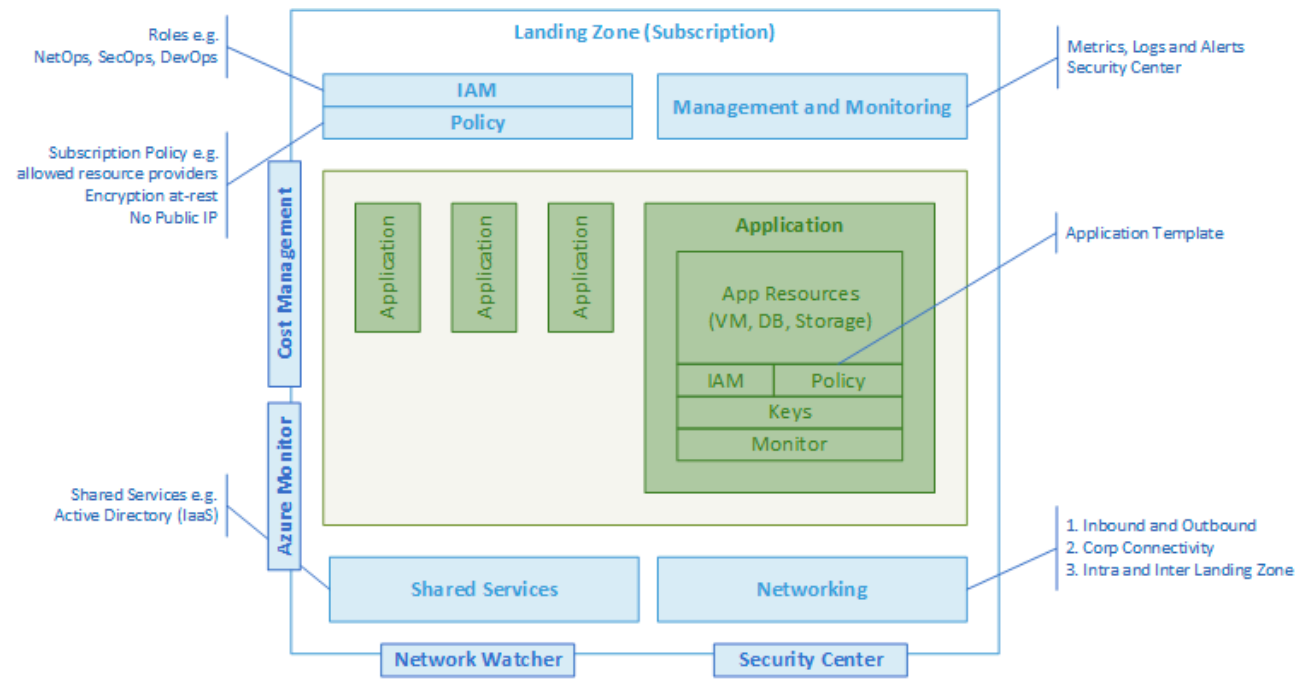
WHAT'S NEW

What's new in the Cloud Adoption Framework

<https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-setup-guide/>

Azure Landing Zones

Azure landing zones are the output of a multisubscription Azure environment that accounts for scale, security, governance, networking, and identity.



<https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/ready/enterprise-scale/architecture>