Building a Web Server VM in Azure

This presentation will walk you through the process of building a secure and reliable web server VM in Azure, covering essential steps from VM selection to deployment and management.

DM **by Divyanshu Mishra**

Why Choose Azure for Your Web Server?

Global Reach

Azure's global network of data centers ensures low latency and high availability for your web server, reaching users worldwide.
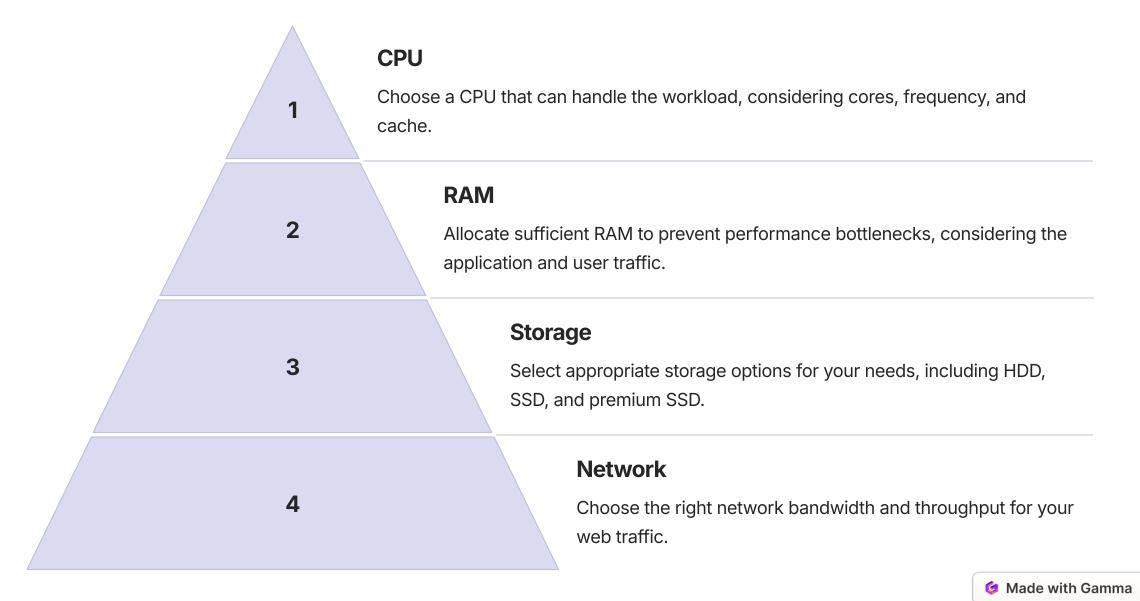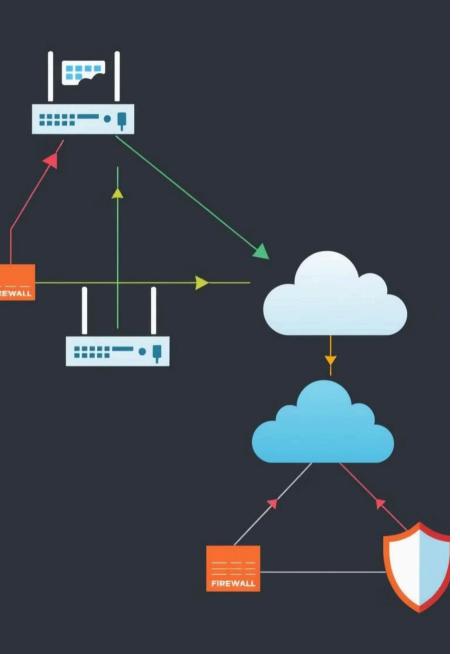
Scalability and Flexibility

Azure provides flexible scaling options, allowing you to adjust resources on demand to meet changing traffic needs.

Security and Compliance

Azure offers robust security features, including encryption, access control, and compliance certifications, ensuring your data is protected.

Selecting the Right VM Size and Configuration

1

CPU

Choose a CPU that can handle the workload, considering cores, frequency, and cache.

2

RAM

Allocate sufficient RAM to prevent performance bottlenecks, considering the application and user traffic.

3

Storage

Select appropriate storage options for your needs, including HDD, SSD, and premium SSD.

4

Network

Choose the right network bandwidth and throughput for your web traffic.

Setting Up Networking and Security

1 **Network Security Groups (NSGs)**

NSGs filter traffic based on IP addresses, ports, and protocols, enhancing security.

2 **Virtual Network (VNet)**

VNets isolate your VM's network traffic, improving security and controlling access.

3 **Security Groups**

Define access control rules to specify which users and services can access your VM.

Made with Gamma

Deploying the Web Server Software

1	**Choose Software** Select your preferred web server software, such as IIS, Apache, or Nginx.
2	**Install Software** Use Azure Marketplace or custom scripts to install your web server software.
3	**Configure Settings** Customize settings like website directories, access permissions, and port configurations.

Customizing the Web Server Environment
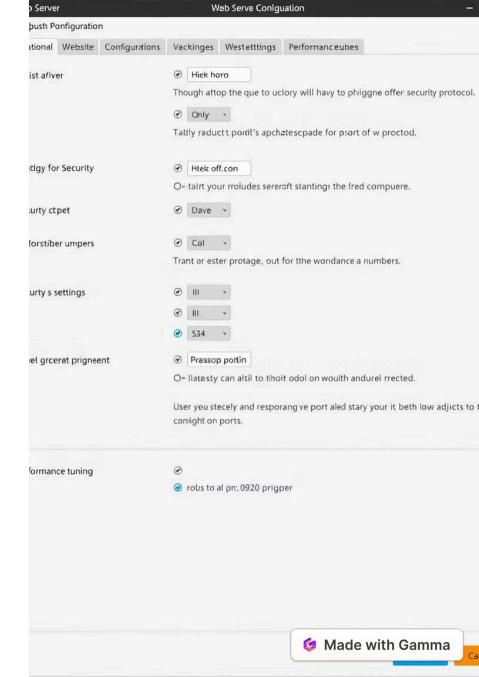
Website Configuration

Configure website settings such as domain names, SSL certificates, and content directories.

Security Measures

Implement security measures like firewalls, intrusion detection systems, and web application firewalls.

Performance Tuning

Optimize web server performance by adjusting settings, caching, and resource allocation.

Monitoring and Managing the VM

Performance Monitoring

Track key metrics like CPU, memory, and network usage to ensure optimal performance.
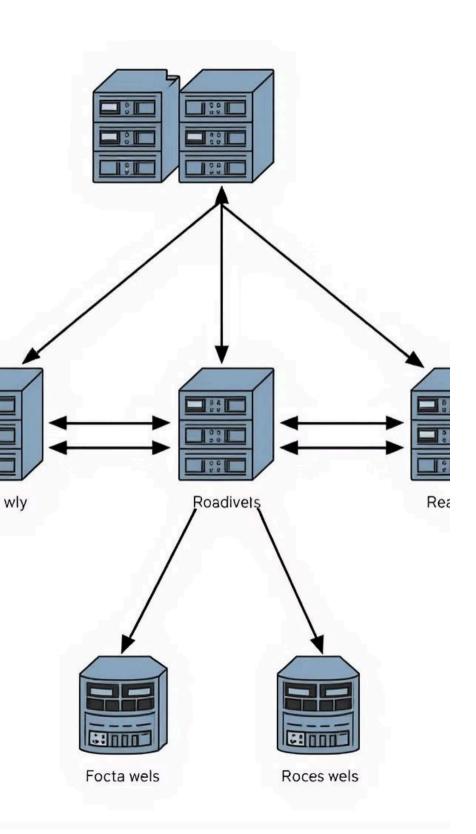
Security Monitoring

Monitor security events, logs, and alerts to identify and respond to potential threats.

VM Management

Manage VM updates, backups, and other tasks using Azure's management tools.

Scaling and High Availability Considerations

1

Horizontal Scaling

Add more VMs to handle increased traffic and load.

2

Load Balancing

Distribute traffic evenly across multiple VMs for optimal performance.

3

Failover Mechanisms

Configure automated failover to ensure uninterrupted service in case of outages.