

# MultiSoftware Enterprise:

## A Cloud Solution



ΜΑΡΙΤΑ ΚΩΝΣΤΑΝΤΙΝΑ  
ΜΠΟΥΛΟΥΤΣΟΣ ΒΗΣΣΑΡΙΩΝ  
ΣΑΛΔΑΡΗ ΚΡΥΣΤΑΛΙΑ  
ΤΑΣΙΟΥΔΗΣ ΑΝΤΩΝΙΟΣ  
ΦΛΟΥΡΗ ΧΡΥΣΑΝΘΗ

# Microsoft Entra ID

## Cloud identity Hub

### Definition:

**Microsoft Entra ID (formerly Azure AD) is a cloud-based identity and access management (IAM) service that secures access to company resources**

### Key Capabilities

#### Authentication:











**MFA, SSO, passwordless**

#### User Management:

**Employees, admins, external guests**

#### Conditional Access:

**Context-aware security policies**

Name	Type
 log-multisoft-monitor	Log Analytics workspace
 multisoftstorage	Storage account
 App Failures Alert	Log search alert rule
 High DB Response Time	Log search alert rule
 multisoftenterprise	Application Insights
 multisoftserver	SQL server
 multisoftdb	SQL database
 multisoftenterprise	Resource group
 multisoftenterpr-id-a991	Managed Identity
 Azure for Students	Subscription

# Implementation Process



## User Setup

- **Create employee/admin accounts**
- **Assign licenses (Office 365)**

## Device Management

- **Windows Hello for laptops**
- **Azure AD join settings**

## Security Policies

- **Conditional Access:**
  - **MFA for external access**
  - **Always MFA for admins**
- **Trusted locations (office IPs)**

## Access Control

- **RBAC roles:**
  - **Developers: Read-only**
  - **Admins: Full access**

# Ongoing Management

## Self-Service Password Reset (SSPR)

- Empower users to reset passwords securely without IT help
- Supports MFA verification ( phone, email, security questions)
- Reduces helpdesk tickets by 50%+

## Alert Configuration

- Real-time threat detection:
  - Suspicious sign-ins ( unusual locations/ devices)
  - Impossible travel alerts ( logins from distant locations in short time)
- Risk-based policies:
  - Automatically block high-risk activities
  - Require MFA for medium-risk events

## Regular Reviews

- Audit logs:
  - Track admin actions (who changed what, and when)
  - Export logs for compliance (GDPR, HIPAA, etc.)
- Sign-in analytics:
  - Identify failed login patterns (potential attacks)
  - Monitor device health (outdated OS/unpatched software)

# Networking

## Firewall & DDoS Protection

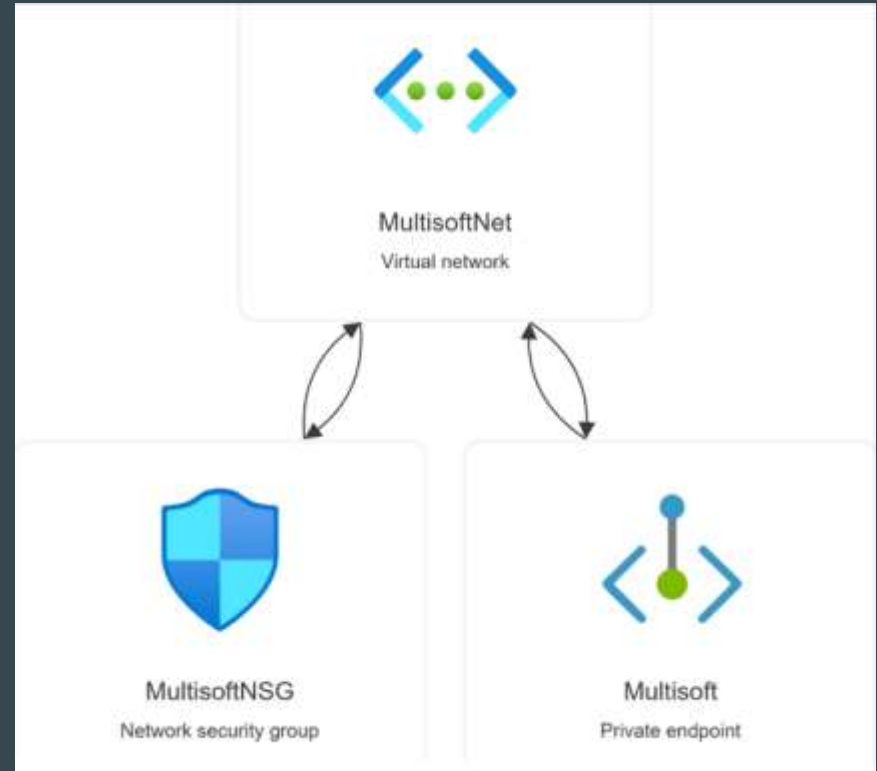
- Defence against outside attacks
- Data Security

## Subnets

- Used for firewall and private endpoint creation

## Network Security Group

- For use with our Web App



# Azure SQL Database

## Overview

- Used to store structured data for the company's internal operations.
- Supports approx. 2,000 read and 500 write operations per day.
- Single database deployment model for isolation and manageability.
- vCore-based purchasing model.
- Provides built-in high availability, automatic backups, and scalability.

## Security & Compliance

- Data is encrypted at rest with Transparent Data Encryption (TDE).
- Automatic backups enabled with point-in-time restore.
- Access secured via firewall rules and Azure Active Directory authentication.
- Supports audit logging for compliance tracking.
- Database stored in North Europe to meet data residency requirements.

# Azure SQL Database

## Cost & Management

- Resource tagged for internal billing separation from other company resources.
- Monitored using Azure Monitor, Log Analytics, and Application Insights.
- Alerts configured for high CPU usage, slow queries, and connectivity issues.
- Scaling and performance tuning handled via Intelligent Performance features.

### Basics

Subscription	Azure for Students
Resource group	multisofterprise
Region	North Europe
Database name	multisoftdb
Server	(new) multisoftserver
Authentication method	SQL authentication
Server admin login	chrisanth
Compute + storage	General Purpose - Serverless: Standard-series (Gen5), 1 vCore, 32 GB storage
Backup storage redundancy	Locally-redundant backup storage

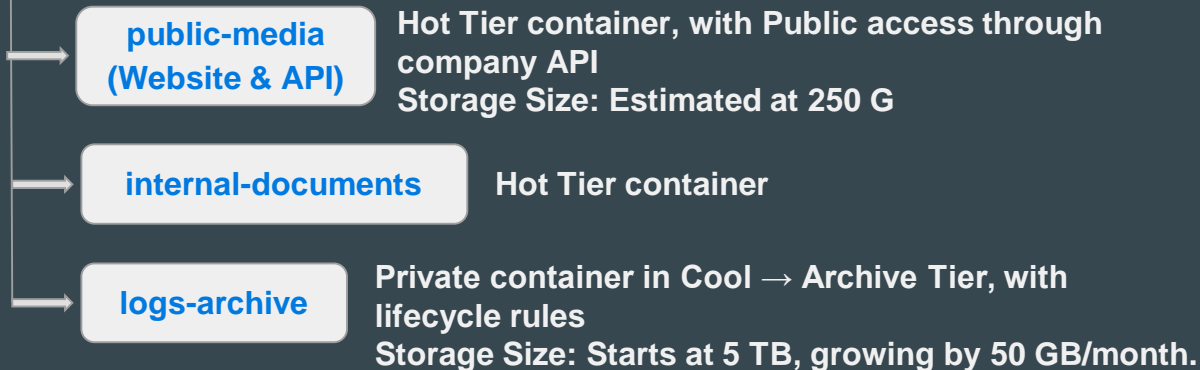
### Networking

Allow Azure services and resources to access this server	No
Private endpoint	(New) Multisoft
Minimum TLS version	1.2
Connection Policy	Redirect

# Blob Storage



## Containers



Blob service	
Hierarchical namespace	Disabled
Default access tier	Hot
Blob anonymous access	Enabled
Blob soft delete	Enabled (7 days)
Container soft delete	Enabled (7 days)
Versioning	Disabled
Change feed	Disabled
NFS v3	Disabled
Allow cross-tenant replication	Disabled
Storage tasks assignments	None

## Soft Delete

Enabled (7 days)

## Lifecycle Rules (logs-archive)

Archive after 90 days

Delete after 1825 days (5 years)

Automatic old  
data management



# Monitoring Setup

## Log Analytics Workspace

Workspace created: log-multisoft-monitor

- Blob Storage logs enabled
- Diagnostic Settings:

Logs: StorageRead, StorageWrite, StorageDelete

- Query support for troubleshooting, auditing & alerting

## Diagnostic Settings for Blob Storage

- Blob service selection
- Enable sending logs to Log Analytics Workspace

## Alert Rules

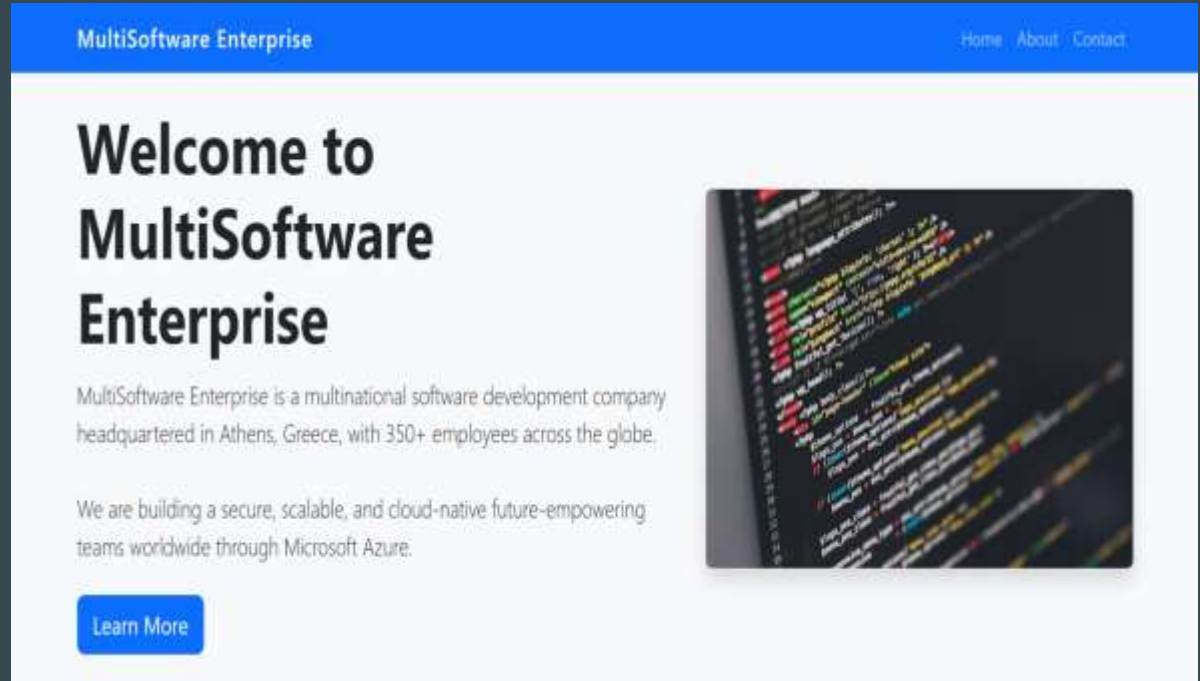
- App failure alert (count >5)
- High CPU Alert (CPU>80%)
- High DB Response Time ( avg\_duration >1000msec)

Alert rules ...					
<div><div>+ Create</div><div>Columns</div><div>Refresh</div><div>Export to CSV</div><div>Open query</div><div>Delete</div><div>Enable</div><div>Disable</div></div>					
<div><div>Search</div><div>Subscrip... : Azure for Students (221b6138-49d8-4cf6-b67b-c3f...</div><div>Target scope : all</div><div>Target resource type : all</div><div>Signal type : all</div><div>Severity : all</div><div>Status : all</div><div>Add tag filter</div></div>					
Name ↑↓	Condition	Severity ↑↓	Target scope	Target resource type	Signal type ↑↓
<input type="checkbox"/> App Failures Alert	count_ > 5	2 - Warning	multisoftenterprise	Application Insights	Log search
<input type="checkbox"/> High CPU Alert	CpuPercentage > 80	2 - Warning	ASP-multisoftenterprise-897b	App Service plan	Metrics
<input type="checkbox"/> High DB Response Time	avg_duration > 1000	2 - Warning	multisoftenterprise	Application Insights	Log search

# App Services

## Web App Plan

- ✓ **Web App Plan:**  
P0v3 (RAM: 4GB, 1 CPU)
- ✓ **Operating System:**  
Windows
- ✓ **Runtime Stack:**  
Dotnet- v8.0
- ✓ **Application Insights**
- ✓ **Log Analytics**



<https://multisoftenterprise-h5euazgudca5h0bb.northeurope-01.azurewebsites.net>

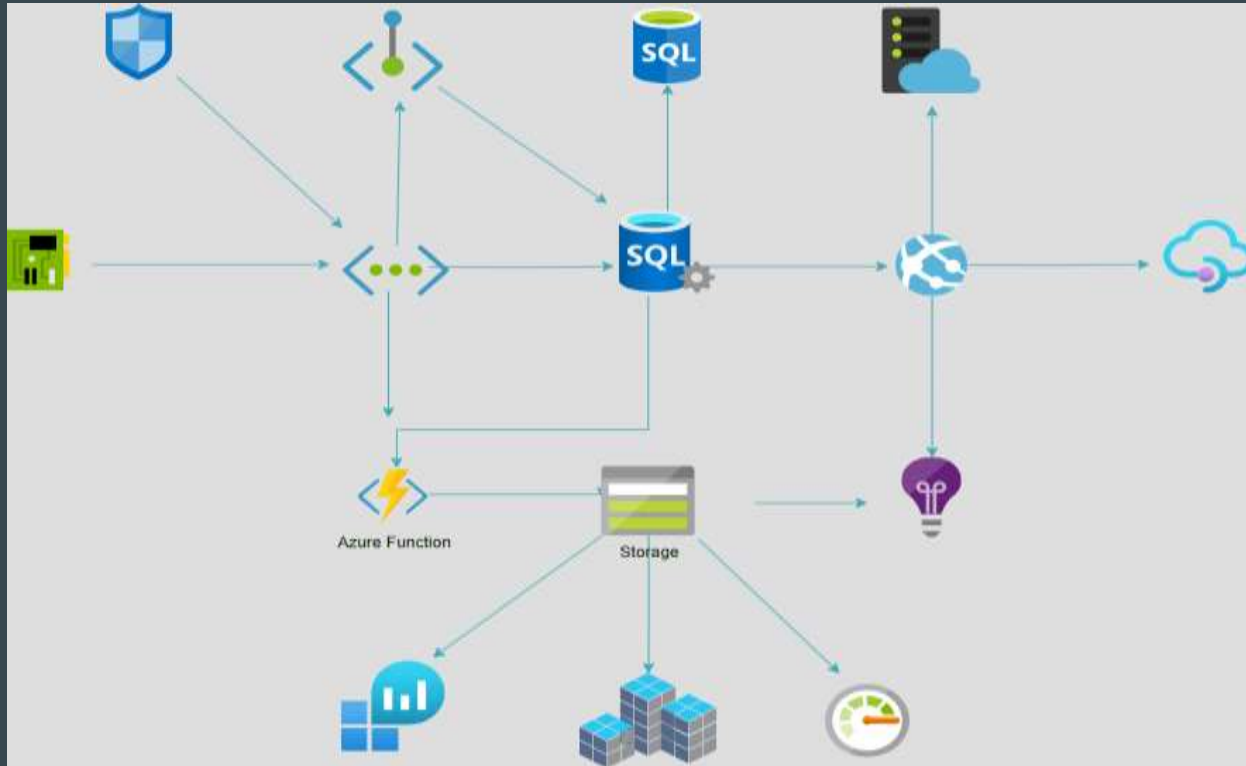
# API Management Service

## API Management Plan: Standard v2

- Scales up to 10 units per instance for increased throughput and availability
- Provides a managed API gateway to secure, route, and monitor API traffic
- Supports virtual network integration, allowing secure access to backend APIs in isolated networks
- Can easily support 100,000 read operations and 10,000 write operations per month



# Services Diagram



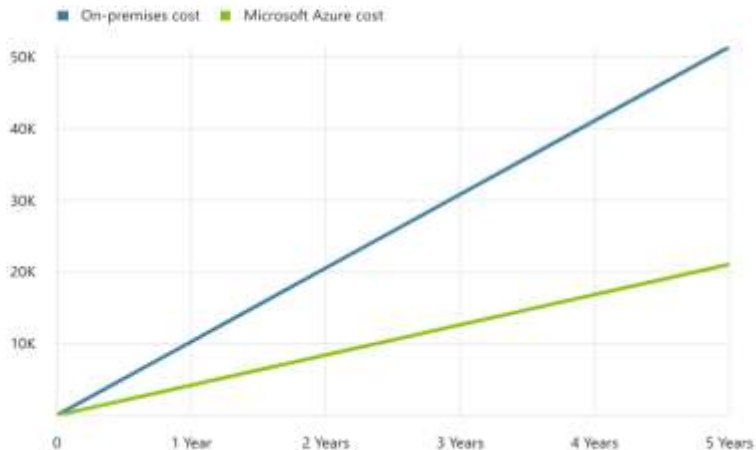
# Cost Analysis

Over 5 year(s) with Microsoft Azure, your estimated cost savings could be as

much as **€30,328**

## Total on-premises vs. Azure cost over time

Savings from running workloads in Azure accrue over time. The following shows how those savings add up over years.





Thank you  
for your attention!