

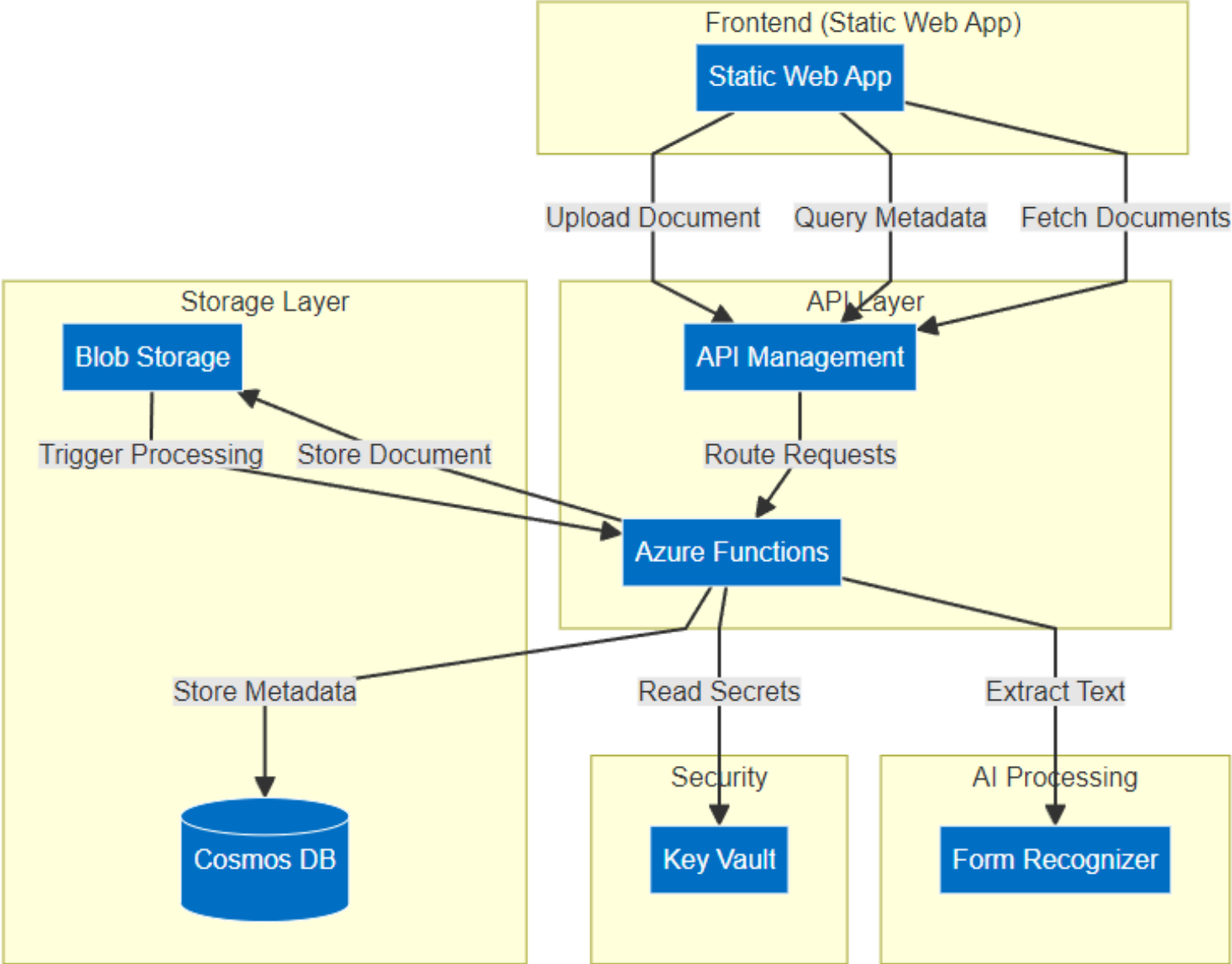
PaperPulse

Serverless Document Processing Platform

Overview

- Automatic document analysis and metadata extraction
- Built entirely on Azure serverless architecture
- Focus on scalability and cost efficiency
- Infrastructure as Code (IaC) with Azure Bicep

Architecture



Key Cloud Features

- **Serverless Architecture**
 - Azure Functions
 - Pay-per-use model
 - Auto-scaling
- **Managed Services**
 - Cosmos DB for NoSQL storage
 - Form Recognizer for AI processing
 - Key Vault for secrets

Cost Analysis (Monthly)

- Azure Functions: \$0-50
- Cosmos DB: \$25-100
- Blob Storage: \$0.02/GB
- Form Recognizer: Pay-per-document
- API Management: \$0 (consumption)
- Static Web App: Free tier

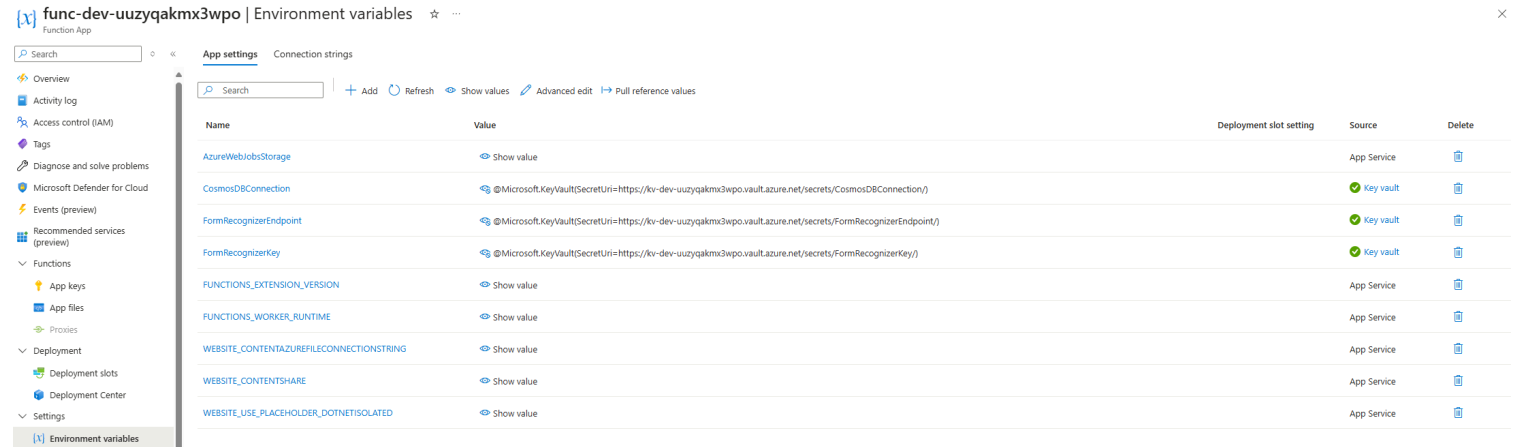
40-60% savings vs on-premises

Scalability & Performance

- **Auto-scaling** at every layer
 - Functions scale to zero
 - Cosmos DB auto-scales
 - Blob storage virtually unlimited
- **High Availability**
 - Multi-region deployment options
 - Built-in redundancy
 - Automatic failover

Security Implementation

- Azure Key Vault integration
- Managed Identities
- RBAC for service access
- HTTPS-only communication
- API Management security



Live Demo Time

Key Learnings

- Serverless isn't always simpler
- Scripting saves time
- Azure documentation can be misleading
- Cost optimization requires planning
- Infrastructure as Code is essential
- <https://github.com/Azure/Azure-Functions/issues/2248>

Thank You!

Questions?

[GitHub Repository](#)