

EZ Platform Architecture

Data Processing & Validation Platform | 9 Microservices | Event-Driven



EZ PLATFORM ARCHITECTURE



PRESENTATION LAYER

React 19 Frontend
TypeScript + Ant Design
RTL/Hebrew | React Query | i18next

NGINX Ingress
Path-based Routing
ezplatform.local | CORS enabled

REST APIs

API / MANAGEMENT LAYER

DataSource Mgmt
Port 5001
CRUD | Schemas

Metrics Config
Port 5002
Definitions | Alerts

Invalid Records
Port 5006
Error Tracking

Scheduling
Port 5004
Quartz.NET | Cron

MassTransit on RabbitMQ

DATA PROCESSING PIPELINE

File Discovery
Port 5007 | 2 replicas
Poll folders
Deduplication
(file hashes)

File Processor
Port 5008 | 2 replicas
Format Detection
CSV/XML/Excel
→ JSON

Validation
Port 5003 | 1 replica
JSON Schema 2020-12
Business Rules
Metrics Calc

Output
Port 5009 | 3 replicas
Local | SFTP
HTTP API
Message Queues

DESTINATIONS
Local Files
SFTP
HTTP APIs

DISTRIBUTED INFRASTRUCTURE

KAFKA
Input/Output
9092/9094
+ ZooKeeper

RABBITMQ
Inter-Service
5672 AMQP
15672 UI

HAZELCAST
Dist. Cache
file-content
valid-records

MONGODB
Replica Set
27017
2 nodes

STORAGE
Input: 50Gi
Output: 100Gi
ReadWriteMany

OBSERVABILITY STACK

PROMETHEUS
Dual Instance
System: 9090
Business: 9091

GRAFANA
Dashboards
Port 3001
Business KPIs

JAEGER
Tracing
Port 16686
Span Analysis

ELASTIC
Logs + Traces
Port 9200
Fluent Bit

OTEL
Collector
4317
4318

KUBERNETES CLUSTER (Minikube) | Namespace: ez-platform | 9 Microservices | Event-Driven Architecture




92% Complete

.NET 10.0 + React 19

Hebrew/RTL Support

RabbitMQ + MassTransit

Full Observability Stack

 Presentation Layer  API/Management Layer  Data Processing Pipeline  Distributed Infrastructure  Observability Stack

[← All Diagrams](#)

[Data Pipeline →](#)

[Observability Stack →](#)