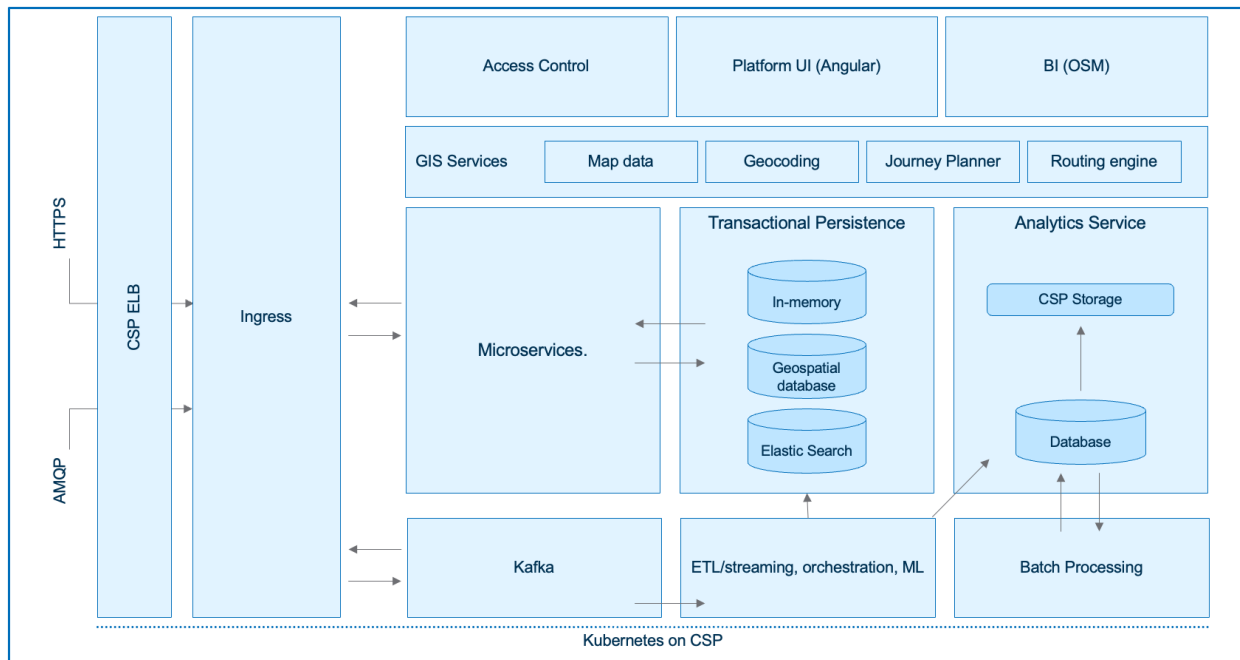


Technical Architecture Overview

This document provides a high-level technical summary of the open-source solution architecture underpinning the transport platform. It is intended to orient prospective vendors on the technology stack they will be building upon.

The platform is deployed entirely on Kubernetes on AWS, ensuring horizontal scalability, infrastructure-as-code portability, and cloud-native operational management across all layers.



Architecture Layers

1. Network Ingress
2. Access Control Layer
3. GIS Services
4. API Microservices
5. Message Streaming via Kafka
6. Transactional Persistence
7. ETL / Stream Processing

8. Analytical / OLAP Layer

9. Presentation Layer

Notes for Bidders

All components are open source except AWS-managed services (ELB, S3).

Vendor-built modules are expected to integrate primarily via the microservice APIs and optionally consume the Kafka event stream.

The platform assumes containerised deployments; all vendor deliverables must be Kubernetes-compatible.