

TechNova Inc. - Application & Data Architecture

Application Stack

TechNova's backend services are written primarily in Python and Go.

Microservices are deployed in Kubernetes clusters managed via EKS.

The frontend is built with React and served through a CDN.

Authentication is handled via OAuth 2.0 integrated with Okta.

Data Layer

Primary transactional data is stored in PostgreSQL clusters.

Redis is used for caching and session storage.

Long-term analytics data is stored in a Snowflake data warehouse.

Data pipelines are orchestrated using Apache Airflow.

Monitoring & Observability

Metrics are collected using Prometheus and visualized in Grafana.

Centralized logging is handled via ELK stack.

Distributed tracing is implemented using OpenTelemetry.

Alerting policies are configured in PagerDuty for critical incidents.