

# DANIYAR ARINOV

Senior Golang Developer

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## PROFESSIONAL SUMMARY

Senior Backend Developer with 6+ years of production experience specialising in high-load telecom systems. Proven expertise in designing and optimising distributed microservices architectures for major mobile network operators. Strong track record in GraphQL Federation, event-driven architecture, and delivering customer-facing tariff platforms serving 50K+ RPS with 99.95% uptime. Experienced in agile product teams, architectural decision-making, and mentoring junior engineers.

## PROFESSIONAL EXPERIENCE

### Senior Golang Developer (Backend Engineer)

**Vodafone UK** • Newbury, Berkshire & Remote

*January 2020 – February 2026*

Led backend development for the Enterprise Product Offering platform within Vodafone UK, serving over 17 million mobile subscribers. Responsible for integrating internal BSS/OSS systems, architecting scalable solutions, and implementing complex tariff mechanics for consumer and business segments including Vodafone Red, VOXI, and Vodafone Basics portfolios.

#### Key Responsibilities

- Architected and maintained microservices handling tariff plans, add-ons, and promotional offers across consumer (Red, VOXI, Basics) and enterprise segments
- Built integrations with BSS systems (billing, provisioning), CRM platforms, and customer self-service portals (My Vodafone app)
- Designed GraphQL Federation architecture for unified API layer across product catalogue services
- Implemented event-driven synchronisation using Apache Kafka for real-time business rules updates
- Participated in major national tariff launches (Vodafone Red refresh, VOXI expansion), technical planning, code reviews, and onboarding of new engineers

#### Key Projects & Achievements

##### 1. GraphQL APQ (Automatic Persisted Queries) Optimisation

**Challenge:** Network overhead in GraphQL Federation was impacting performance ahead of major Vodafone Red portfolio refresh and VOXI expansion launches.

**Solution:** Implemented APQ to reduce query transmission from 15-20 KB to 200 bytes (SHA-256 hash). Built lazy hash computation with caching, cache-miss fallback mechanisms, and feature flags for safe production rollout.

**Impact:** 75x reduction in request size, 20% latency improvement at 50K+ RPS, ~2 TB/month bandwidth savings. Delivered in 1 week vs. estimated 3 weeks.

## 2. Gzip Compression in GraphQL Federation

**Challenge:** Sub-graph responses (150-200 KB) created communication bottlenecks between microservices.

**Solution:** Implemented gzip compression at sub-graph level with configurable compression levels, 512-byte threshold to avoid CPU waste on small responses, and transparent decompression in GraphQL clients.

**Impact:** 3-5x response size reduction (150 KB → 35 KB), 15% faster service response times, ~5 TB/month bandwidth savings.

## 3. Event-Driven Business Rules Synchronisation (Kafka + Camunda)

**Challenge:** Kubernetes pod replicas loaded tariff business rules (DMN tables from Camunda) at different times, causing inconsistent customer offers during updates.

**Solution:** Built event-driven architecture with Apache Kafka: producer publishes DMN change events, consumers perform hot-reload of cached rules. Implemented exactly-once semantics via idempotent consumers, graceful shutdown during rolling updates, and health checks monitoring Kafka connectivity.

**Impact:** Rule propagation time reduced from 15 minutes to 3 seconds, 100% replica consistency achieved, zero-downtime deployments, business analysts can modify tariff rules without developer involvement.

## 4. Family Plans & Shared Add-ons Feature (Vodafone Red Family)

**Challenge:** Launch family tariff bundles where account holder can provision add-ons for family members with consolidated billing on Vodafone Red plans.

**Solution:** Developed cross-selling logic with slot validation and tariff compatibility checks. Implemented product lifecycle synchronisation (cascading deactivation when account holder churns). Handled edge cases: member departure, account holder transfer, quota limits. Designed reusable architecture for future family-based mechanics.

**Impact:** Marketing can launch new family mechanics without backend changes, measurable ARPU uplift, reduced churn for multi-SIM households.

## 5. Multi-SIM Promotional Campaign Engine

**Challenge:** Retail stores needed ability to offer discounted second SIM with promotional tariff at point of sale, with dynamic eligibility rules.

**Solution:** Built configurable promotion engine with eligibility rules (primary SIM tariff whitelist, customer segments, regions), dynamic promotional tariff selection for secondary SIM, and customer profile personalisation—all managed via configuration without code releases.

**Impact:** Increased average transaction value in retail, promotion time-to-market reduced from weeks to hours, improved retention for customers with 2+ SIMs.

## 6. Technical Support API & Customer Care Tooling

**Challenge:** When sales errors occurred (incorrect tariff provisioned), support teams had to migrate customers to temporary tariffs and back—taking 2-4 hours and requiring L3 escalation.

**Solution:** Developed GraphQL mutation API with elevated privileges for support teams: edit service quotas, modify product composition, add/replace discounts, change regional assignments. Implemented comprehensive audit logging for compliance.

**Impact:** Incident resolution time reduced from 2-4 hours to 5-10 minutes, 80% of cases now resolved at L1/L2 without escalation.

## TECHNICAL SKILLS

**Tech Stack:** Go (Golang), Python, GraphQL, Apollo Federation, REST API, gRPC, Apache Kafka, Microservices Architecture, Event-Driven Architecture, Distributed Systems, Kubernetes, Docker, PostgreSQL, Redis, MongoDB, Prometheus, Grafana, GitLab CI/CD, ArgoCD, AWS

## EDUCATION

**MSc Computer Science with Industrial Placement, Distinction**

*University of Leeds*

*September 2020 – August 2024*

## LANGUAGES

- **English** – Native/Bilingual proficiency (C2)
- **German** – Proficient (C2)
- **Kazakh** – Advanced (C1)