



# Enterprise Telecom Platform

Telecommunications | Modular Modernization & Automation

**We Advise. Develop. And Deliver.**

## Client

A global provider of telecom infrastructure, supporting millions of users worldwide

Modular platform for **configuration management, messaging, and security.**

The project involved the **design, development, and implementation** of a set of services aimed at **automating essential processes in telecom infrastructure.**



## Challenge

The client sought to **modernize and automate its internal telecom infrastructure**, which supported **millions of end users**. Their legacy systems were heavily reliant on manual workflows, resulting in **operational risks and inefficiencies**, including:

- Manual management of SSL certificates
- Error-prone SMS template uploads
- Dispersed configurations stored in static files
- No safeguards against MMS-based spam
- Lack of APIs to block malicious senders
- Inflexible message routing
- Lengthy, regression-prone release cycles



## Approach

We designed and delivered a **modular platform** that addressed each of these challenges through purpose-built backend services:

1. Certificates Management Service
2. DLT Templates Management
3. Configuration Management
4. MMS Blocking API
5. Anti-Spam Media Scanning
6. MM4/MM7 Routing Extensions
7. Technical Modernization for ICMMS



## Certificates Management Service

### 1 Challenge

---

Manual truststore management was slow, error-prone, and posed security risks.

### 2 Approach

---

We built a Spring Boot service to automate certificate syncing, updates, and cleanups across remote servers. Parallelism and MD5 validation ensured safety and speed.

### 3 Result

---

Secure and reliable certificate management, eliminating manual tasks and ensuring compliance through automation.

**Implemented in 3 months with a 3-person backend team.**

## DLT Templates Management Service

### 1 Challenge

---

SMS template uploads were prone to format errors and lacked standard validation.

### 2 Approach

---

We created a pipeline to parse, sanitize, and validate CSV-based templates with regex rules and execution time checks. Added upload tracking, job status APIs, and email alerts.

### 3 Result

---

Reduced upload errors, improved visibility for users, and ensured regulatory formatting compliance automatically.

**Completed in 2 months.**

## Configuration Management Service

### 1 Challenge

---

Configuration changes required redeployment and were hard to track.

### 2 Approach

---

Built a central config service and a sync-enabled client library with override rules. Added polling and runtime change detection.

### 3 Result

---

Enabled dynamic configuration without restarts and improved developer control across environments.

**Project ran for 4 months with 2 engineers and DevOps support.**

## Blocking API for MMS Senders

### 1 Challenge

---

There was no effective way to block malicious MMS senders in real time.

### 2 Approach

---

Developed REST APIs to manage a blocklist and enforced them at MM7/SIP layers. Changes included a new DB table and admin UI support.

### 3 Result

---

Improved security and abuse prevention with fast, auditable sender blocking.

**Built in 2 months.**

## Anti-Spam Media Scanning

### 1 Challenge

---

Image-based MMS spam bypassed standard filters.

### 2 Approach

---

Integrated RealNetworks RNA to scan MMS media content using a thread-safe, circuit-breaker-protected architecture.

### 3 Result

---

Spam detection extended to media content, with fallback logic to maintain reliability and uptime.

**Implemented over 3 months with full SIP and HTTP support.**

## MM4/MM7 Additional Flows

### 1 Challenge

---

MMS platform lacked A2P MM7 flow support needed for campaign compliance.

### 2 Approach

---

Added bidirectional routing between MM4/MM7 with ENUM and campaign ID-based VAS routing logic. Configuration support and mock setups were introduced.

### 3 Result

---

Enabled carrier-compliant A2P messaging and seamless campaign handling without client changes.

**Completed in 5 months.**

## Technical Improvements & Modernization

### 1 Challenge

---

Slow development cycles, fragile builds, and lack of test automation.

### 2 Approach

---

Dockerized services, built regression pipelines, introduced Hazelcast cache, and upgraded Java stacks. CI/CD and Kubernetes support.

### 3 Result

---

Cut pre-release testing from weeks to minutes and improved deployment safety and speed across all teams.

**6-month period.**

# **Our Leadership Team**





**CEO**



# Michael Glazer

Michael has 25+ years experience in US Capital Markets. Over his career he held many different technical roles in Software Development, Solution Architecture and Delivery Management. Well-known key engagements included **FXall**, **Intercontinental Exchange** and **ENSO Financial** (Nex Group), and **GFT**.



# Anton Moiseev

Anton has over 15 years experience with FinTech and Insurance projects, including leading insurance broker platform **SuranceBay**. Anton has a deep track record leading development teams and delivering production systems. Anton is also a Technical SME, contributing to open source projects, conducting webinars and co-authoring books.

Key open source creator for [Dart.dev](https://dart.dev) (later [Flutter.dev](https://flutter.dev))

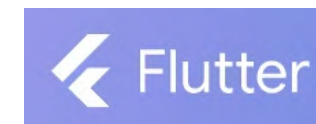
Key architect and designer for <https://www.surancebay.com/>.

Notable **Manning Publications**:

[TypeScript Quickly](#)

[Angular Development with TypeScript, Second Edition](#)

[Angular 2 Development with TypeScript](#)





# VP of Engineering



## Michael Musatov

Michael is a Lead Development Manager with 15+ years of experience working on successful projects in Insurance, including leading insurance broker platform **SuranceBay**, FinTech and Telecommunications industries. Michael has strong skills in designing and implementing robust and simple solutions to solve complex real-life business cases with a rich variety of technologies including both Java and .NET platforms.

- MCPD: Windows Developer
- MCPD: Web Developer
- MCPD: Windows Azure Developer
- MCTS: .NET Framework, Web Applications
- MCTS: .Net Framework, Data Access
- MCTS: .NET Framework, Service Communication



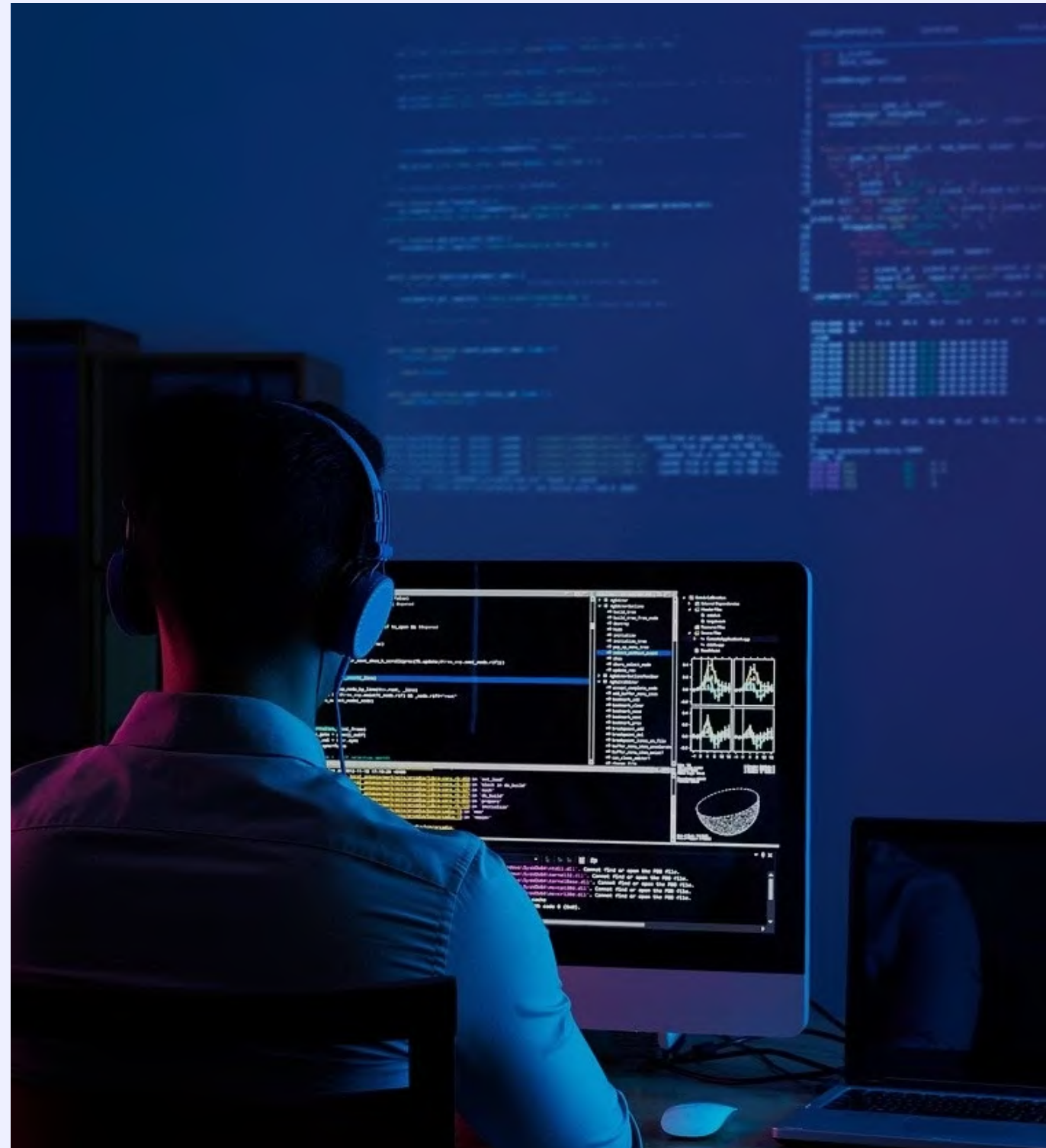
Platonic

meetperry



SURANCEBAY  
INSURANCE. SIMPLIFIED.

# References



**Capital Markets** - ENSO Financial Analytics acquired by NEX (part of ICAP) and by Hazeltree

*Functionality: Web Workflow, Reporting, Compliance, Market Data*  
Voted "Most Innovative Hedge Fund Platform" by Hedge Fund Magazine 2 years in a Row



**Private Equity** - Meetperry

*Functionality: Web & Mobile Investor's Portal, Fund Transfer, Reporting*



**Assets Tokenization** - Platonic (former Symbiont)

*Functionality: Financial services with Platonic's enterprise-grade L1 blockchain.*



**Quantitative Trading** - Epsilon Services

*Functionality: Rich Real-Time Trading, Position Management*



**Telecom** - REW - Tampa-based consulting firm focused on telecommunications

*Functionality: Billing, SMS Notification, Customer Portals for large Users*

# Contact Us

**Website**

[www.forkjoin.io](http://www.forkjoin.io)

**Austria**

**(Home Office)**

+43 676 3308473

**New York**

**(Regional Office)**

+1 (347) 420-1474

**Email**

hello@forkjoin.dev

