

Valery V. Lobachev

CTO | Information & AI Systems Architect
SAP FI/CO Lead Consultant | S/4HANA
25+ years in enterprise systems architecture & delivery

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PROFESSIONAL PROFILE

Experienced CTO and enterprise architect with 25+ years of hands-on experience in corporate consulting, software engineering, and IT team leadership. Deep dual expertise spanning SAP FI/CO / S/4HANA and modern software architecture (Microservices, AI/ML, Event-Driven). Delivered international projects across 4+ countries. Creator of the open source Annette platform (Intranet 2020 award winner). Combines business consulting skills (finance, controlling, IFRS) with modern software development (Java, Scala, Kotlin, Golang, Rust, Python). Proven track record of end-to-end production system delivery and cross-functional team management.

CORE COMPETENCIES

🏗️ IS Architecture

- ▶ Microservices / EDA / SOA
- ▶ API-First / Event Sourcing
- ▶ CQRS, RBAC/ABAC/ReBAC
- ▶ DevOps & CI/CD
- ▶ ADR & Architecture Governance

🤖 AI Systems

- ▶ Multi-Agent AI Systems
- ▶ LLM Inference (vLLM)
- ▶ LangChain / LangGraph
- ▶ ML Demand Forecasting
- ▶ MLOps & MLOps

📁 SAP CO/FI

- ▶ CO-PC / CO-PC-ACT (ML)
- ▶ CO-PA / CO-PCA
- ▶ CO-OM-CCA / OPA
- ▶ FI-GL/AR/AP/AA/FM
- ▶ Parallel Valuations (IFRS)

🔄 S/4HANA

- ▶ Conversion (Discovery, Realization)
- ▶ Fit-Gap / Simplification List
- ▶ SAP Activate Methodology
- ▶ S/4HANA Finance (cert. 2021)
- ▶ SAP Fiori / SAP BW

CERTIFICATIONS

SAP S/4HANA Finance	SAP Certified Application Professional – Financials in SAP S/4HANA for SAP ERP Finance Experts (S/4HANA 2020) — 2021
SAP FI/CO	SAP Certified Application Associate — FI/CO (2006)
CMA	Certified Management Accountant — 3 of 4 exams passed (IMA)
Microsoft	Microsoft Certified: Dynamics Navision/Axapta (Finance, Programming, Sales)
Java	Sun Certified Java Programmer (SCJP)

WORK EXPERIENCE

Architect / Lead FI/CO Consultant

Amber Labs (freelance)

[AI Architecture] [SAP CO] [S/4HANA]

March 2019 — Present
Moscow / Remote

Multi-Agent AI System for Sales Forecasting (Prototype)

Feb–Mar 2026

Role: Architect / Developer

- ▶ Designed and built a multi-agent AI system architecture on LangGraph with local LLM inference (Qwen3-8B / vLLM)
- ▶ Implemented chatbot interface, product catalogue visualisation, and sales history analytics
- ▶ ABC/XYZ analysis by revenue and demand stability; automatic algorithm selection based on time-series characteristics (seasonality, trend)

- Demand forecasting using 7 algorithms: Linear Regression, Holt-Winters, Croston, Prophet, XGBoost/LightGBM, ARIMA/SARIMA, Random Forest
- Inventory risk report and stock management recommendations generation
- LLM inference monitoring with MLFlow

Stack: Python, ChainLit, LangChain, DeepAgents, LangGraph, PostgreSQL, RustFS, Docker, MLFlow, vLLM (Qwen3-8B)

AI-Powered Application Processing System (Prototype)

January 2026

Role: Architect / Developer

- End-to-end architecture and implementation of an automated incoming-application processing system using LLM
- Document ingestion and conversion (doc, pdf, png/jpeg) to text via Unstructured library
- LLM-based extraction of key attributes (counterparties, TIN, addresses, contract terms) with specialist recommendations
- Full stack: Go backend, Kafka message bus, React/SAP UI5 frontend, Keycloak-based authorisation
- LLM inference deployment via vLLM + MLFlow monitoring

Stack: Go (GORM, go-chi, minio-g), Python (Unstructured, LangChain, MLflow), TypeScript/React/SAP UI5, Kafka, PostgreSQL, RustFS, Keycloak, Docker, Traefik, vLLM (Qwen3-8B)

Automated Freight Wagon Management System — SAP PM Import Substitution (RZhD / Russian Railways)

April 2023 — December 2025

Role: Chief Architect

- Designed a hybrid architecture: 15 business services, 18+ integrations with RZhD information systems, 14 micro-frontends — REST, WebSocket and async via Kafka
- Designed 600+ database tables, indices, and entity relationships
- Designed authentication concept (Keycloak + custom plugins) and authorisation model (RBAC, ABAC, ReBAC)
- Designed and implemented DevOps pipelines: CI/CD, sizing, and network topology for dev/test/prod landscapes
- Team management: interviews, process setup (analysis → development → testing → production)
- Architecture governance: end-to-end ADR development and review
- Production deployment and post-go-live support

Stack: Kotlin/Java, Spring Boot, PostgreSQL, OpenSearch, Kafka, Minio, Redis, Docker, Kubernetes, Keycloak, Camunda, Loki, Victoria Metrics, Grafana, TypeScript/React, Gitlab CI/CD

Pre-Failure Condition Monitoring & Predictive Maintenance System for Freight Wagons

December 2021 — March 2023

Role: Architect / Team Lead

- Designed hybrid architecture: Microservices + EDA (Event Sourcing, CQRS) + Akka Cluster + Microkernel
- Integrated ML-based predictive maintenance sub-system with SAP ERP
- Established development and DevOps processes
- Team management (Kanban), architecture governance

Stack: Hadoop, Spark, HDFS, Scala, Akka Cluster, Python, PostgreSQL, Kafka, Docker, Gitlab CI/CD

SAP ERP → S/4HANA Conversion — Discovery Phase

April 2021 — August 2021

Role: FI/CO Architect

- Executed and analysed Readiness Check and Business Scenario Recommendations reports
- Custom code analysis; identification of business-function conflicts and add-on clashes
- Preliminary Simplification List preparation
- Analysis of Finance & Controlling processes, IFRS reporting, tax reporting, and period-end close procedures
- Discovery phase report compilation and presentation to top management

Stack: SAP ECC, S/4HANA, SAP Readiness Check, Business Scenario Recommendations

Corporate Intranet Portal — MVideo-Eldorado

March 2019 — April 2021

Role: Chief Architect

- ▶ Designed hybrid conceptual architecture (Microservices + EDA + Akka Cluster) based on SAP HR & SAP BW and Annette platform
- ▶ Designed authentication (Keycloak + Active Directory integration) and authorisation (RBAC, ABAC, ReBAC) subsystems
- ▶ Infrastructure design: sizing, network topology, and monitoring for 3 landscapes
- ▶ DevOps implementation: CI/CD pipelines, deployment scripts for dev/test/prod
- ▶ Team management: interviews, process setup for analysis, development, testing, and production delivery
- ▶ 🏆 Solution won the international Intranet 2020 Award

Stack: Scala, Akka/Lagom, Cassandra, PostgreSQL, Elasticsearch/OpenSearch, Kafka, Minio, Docker, Kubernetes, OKD, Helm, Istio, Keycloak, Loki, Prometheus, Grafana, TypeScript, Angular, Vue, Gitlab CI/CD

Architect / Developer (open source)

September 2018 — Present

Personal Open Source Projects

Remote

Annette Platform ([annetteplatform.github.io](https://github.com/annetteplatform))

- ▶ Distributed microservice platform: application management, authentication/authorisation, HR & org structure, CMS, BPM, notifications, task scheduler

Stack: Scala, Akka/Lagom, Golang, GORM, go-zero, Rust/Axum, Cassandra, PostgreSQL, OpenSearch, Kafka, Minio, Docker, Kubernetes, Keycloak, Vue, React, Zustand, SAP UI5 for React, Gitlab CI/CD

Annette Data Dictionary (github.com/valerylobachev/data-dictionary-builder)

- ▶ Data model description tool in Scala DSL with generation of: SQL DDL (PostgreSQL, ClickHouse), entity code (Kotlin, Go/GORM/SQLx), technical documentation in Excel, DBML schemas for dbdiagram.io, Excel import templates

Solution Architect (freelance)

September 2018 — February 2019

Sibintec / Rosneft PJSC

Moscow

[AI] [Big Data] [SAP]

- ▶ Designed conceptual architecture for Rosneft digital transformation programme based on SAP + Apache Hadoop stack
- ▶ Scenarios: digital supply chain, predictive analytics, digital twin, AI-driven sales planning, AI-based additive volume calculation
- ▶ Production robotisation: drone-based infrastructure inspection with computer vision

Lead FI/CO Consultant (freelance)

October–November 2018

Mareven Food Central (FMCG)

Moscow

[SAP CO]

- ▶ Designed reconciliation solution for Material Ledger data (CO-PC-ML) and Profitability Analysis (CO-PA) with Apache Superset visualisation

Solution Architect / Co-founder (freelance)

August 2017 — August 2018

Anik Lab

Moscow

- ▶ Designed information system architecture for construction project management (client: Moscow Government Department of Construction)
- ▶ Development team management

Stack: Scala, Akka, Play Framework, Cassandra, PostgreSQL, Docker, TypeScript, Angular

Solution Architect / CEO & Co-founder

March 2016 — July 2017

OXY Consult LLC

Moscow

- ▶ Developed and managed the Annette integration platform — collecting data from production equipment and IoT devices and posting it to SAP ERP (material movements, statistical key figures, production order confirmations)

Delivered Projects:

- ▶ Tele2: solution for logistics operation registration, expense report approval and accounting in SAP HANA using the SAP Fiori concept
- ▶ Zagorsky Pipe Plant: integration of SCADA ↔ MES (1C) ↔ SAP ERP (master-data synchronisation, document posting, equipment integration)

Lead FI/CO Consultant (freelance, IBM South Africa contractor)

May 2015 — February 2016
South Africa / Africa

British American Tobacco

[SAP CO] [International]

- ▶ SAP global solution rollout to 20+ African countries across 3 waves: Kenya, Nigeria, South Africa, Botswana, and others
- ▶ Workstreams: SCF (Supply Chain Finance) and MAR (Management Accounting Reporting)
- ▶ Business requirements analysis, solution localisation, change request and CSD development
- ▶ Cut-over plan preparation: opening stock load in three valuations (Local IFRS, Local GAAP, Group)
- ▶ Production Controlling and Material Ledger close in 3 parallel valuations

SAP Functionality Used:

- CO-OM-CCA, CO-PC, CO-PC-ACT (Material Ledger / Actual Costing), CO-PA
- Parallel Valuations (Local IFRS, Local GAAP, Group) + New General Ledger integration

Lead FI/CO Consultant (freelance, IBM EEMEA GBS contractor)

October 2014 — February 2015
CIS (CCA, RU, UMB)

British American Tobacco

[SAP CO]

- ▶ Global solution rollout: Georgia, Uzbekistan, Kazakhstan, Kyrgyzstan, Russia, Ukraine, Moldova
- ▶ Local requirement adaptation for Uzbekistan, Kazakhstan, Kyrgyzstan
- ▶ Cut-over plan, opening stock load in 3 valuations, CO and Material Ledger period-end close

Lead FI/CO Consultant (freelance)

April–October 2014
Moscow

Mareven Food Central (FMCG)

[SAP CO]

- ▶ CO/FI-AA implementation for repair cost accounting: CO-OM-CCA, CO-OM-OPA, FI-AA
- ▶ Integration with PM (Plant Maintenance) module

Lead FI/CO Consultant (freelance)

July 2013 — September 2014
Moscow / CIS

Megapolis Group of Companies (FMCG)

[SAP CO]

- ▶ SAP solution rollout to subsidiaries in Belarus and Kazakhstan: CO-OM-CCA, CO-OM-OPA, CO-PA, CO-PCA
- ▶ Ongoing development and support: CO (CCA, OPA, PA, PCA), FI (GL, AR, AP, AA, FM)

Solution Architect, FI/CO Group Lead (freelance)

March 2012 — March 2013
Belarus

Belvest (Footwear Manufacturing)

[SAP CO]

- ▶ Designed FI/CO/MM/PP solution architecture; managed FI/CO consultant team
- ▶ Developed methodology for production controlling, supply chain procurement cost accounting, and fleet cost accounting
- ▶ Implemented: Material Ledger (CO-PC-ACT), production controlling (CO-PC, CO-ABC), CO-PA, CO-OM
- ▶ Group-valuation management accounting with intercompany profit elimination

Lead SAP CO Consultant (freelance)

July 2011 — March 2012

- ▶ Designed parallel-valuation solution for IFRS accounting, standard cost planning, repair cost accounting

Lead SAP CO Consultant (freelance)
Efes / Gazprom Neftekhim Salavat

January–June 2011
Moscow

- ▶ Efes: CO/MM solution for toll-processing malt accounting
- ▶ Gazprom Neftekhim Salavat: conceptual design for CO-PC, CO-PC-ACT, CO-ABC, CO-PA, CO-PCA for an oil & gas processing plant

FI/CO Group Lead, Lead SAP CO Consultant (freelance)

November 2007 — November 2010
Moscow

Mareven Food Central (FMCG)
[SAP CO]

- ▶ Participated in 4 SAP ERP implementation phases at a food manufacturing company
- ▶ Designed and configured: supply chain controlling (CO-OM-OPA, CO-PC-ACT), production controlling, CO-PA
- ▶ CO reporting in SAP BW: data sources, InfoObjects, InfoCubes, reports
- ▶ Implemented separate cost accounting (equipment/labour/scrap/warehouse) in compliance with IFRS

Consultant → Lead SAP CO Consultant / MBS Navision
IBS

April 2002 — November 2007
Moscow

- ▶ SAP CO (2006–2007): implementation at a metallurgical plant — CO-PC-ACT, CO-PA, WIP accounting, CO-PA user-exit for industry specifics
- ▶ MBS Navision (2002–2006): IS architecture design, sales forecasting and replenishment mathematical models, OLAP analytics, ABC/M methodology

IT Manager / External Consultant (freelance)
Genexim LLC (Tommy Hilfiger Russia)

July 2001 — October 2005
Moscow

- ▶ Business process design, ERP implementation, OLAP-based performance analytics
- ▶ Developed ABC/M (Activity-Based Costing / Management) management accounting methodology

TECHNICAL STACK

Languages	Java, Scala, Kotlin, Python, Golang, Rust, JavaScript / TypeScript
Backend	Spring/Spring Boot, Akka/Pekko, Lagom, GORM, go-kit, go-zero, Axum, Actix
Frontend	React, Angular, Vue/Vuex, Redux/RTK, Zustand, SAP UI5 for React
Databases	PostgreSQL, Cassandra, Redis, Elasticsearch/OpenSearch, ClickHouse
AI / ML	LangChain, LangGraph, LlamaIndex, DeepAgents, vLLM (Qwen3-8B), MLFlow, Prophet, XGBoost, LightGBM, ARIMA, Unstructured
Big Data	Apache Hadoop, Spark, HDFS
Messaging	Apache Kafka, MQTT
Infra & DevOps	Docker, Kubernetes, OKD, Helm, Istio, Keycloak, Traefik, Minio/RustFS, Camunda, Gitlab CI/CD
Monitoring	Loki, Prometheus, Grafana, Victoria Metrics, MLFlow
SAP	FI (GL, AR, AP, AA, FM), CO (CCA, OPA, PC, PC-ACT, PA, PCA, ABC), S/4HANA Finance, SAP BW, SAP Fiori, SAP HANA
Integration	SAP ERP ↔ IoT/MES, REST, SOAP, WebSocket, Event Sourcing, CQRS
BI / Analytics	SAP BW, Apache Superset, OLAP

EDUCATION

M.Sc. Applied Mathematics (Engineering Mathematician)
MEPHI — Faculty of Cybernetics

1994 – 2000
Moscow

Postgraduate Studies (PhD programme)
MEPHI

2000 – 2003
Moscow

MBA — Financial Management
Synergy Institute (Plekhanov REA)

2004 – 2006
Moscow

Additional: self-study of MIT Sloan MBA programme (Finance & Management Accounting) via MIT OpenCourseWare (2004–2006)

LANGUAGES

Russian

Native

English

Intermediate (B1–B2) — international project work, SAP and IBM documentation

French

Beginner (A1)

Polish

Beginner (A1)
