

# Richard Forss

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## Chief Technology Officer

Hands-on Chief Technology Officer with three decades of experience engineering low-latency trading platforms and high-throughput market infrastructure. Expert in C#, .NET, Java and cloud-native architecture. Proven record of personally designing complex risk engines and real-time market data systems for multi-billion dollar hedge funds.

UK Citizen and holder of a Swiss Residency Permit (No sponsorship required)

## TECHNICAL STACK

- Languages: C# .NET, Java, SQL, REST API, FIX Protocol.
- Cloud & Infrastructure: AWS (Lambda), GCP, Azure, Kubernetes, Docker, Hyper-V, VMware.
- Data & Messaging: PostgreSQL, SQL Server, Oracle, NoSQL, Kafka, RabbitMQ, Redis, TibCo.
- Methodologies: Agile, CI/CD, TDD, RAD, DevSecOps, SDLC.

## EXECUTIVE CAPABILITIES

### Key Technical & Business Achievements

- **Institutional Innovation:** Authored dbconvertibles.com, Deutsche Bank's first online trading system: won the Euromoney award for four consecutive years.
- **Real-Time Data:** Engineered the first-to-market real-time link between Microsoft Excel and Knight-Ridder financial data in 1989.
- **Operating Transformation:** Transitioned a global brokerage to a modern Product Operating Model with accountable squads and outcome-based governance.
- **Digital Asset Infrastructure:** Led the technical implementation of an institutional-grade prime brokerage platform for Covario AG.
- **Serverless Engineering:** Architected a hybrid-cloud risk system using AWS Lambda at Argentière: reduced processing time from hundreds of hours to minutes.

### Technology Governance & Financial Control

- **Financial Framework:** Designed EXANTE's financial governance framework: including annual planning, monthly controls and IFRS alignment.
- **Budgetary Standards:** Implemented rigorous technology budget review standards to ensure spend aligns with strategic architectural goals.
- **Executive Reporting:** Developed board-ready reporting and scenario-planning standards comparable to global Tier 1 banks.

### Platform Engineering & Scalability

- **Strategic Roadmap:** Defined the multi-year roadmap to scale a global multi-asset brokerage across order routing, market data and post-trade automation.
- **System Throughput:** Delivered architectural simplification resulting in a 10x scalability increase in user capacity and order throughput.
- **Workflow Modernisation:** Modernised trading and portfolio-management workflows by integrating pricing and analytics directly into order-lifecycle controls.
- **Estate Transformation:** Engineered fragmented legacy estates into cloud-portable platforms capable of supporting institutional-grade regulatory scrutiny.

### Operating Model & Organisational Transformation

- **Operating Model Transition:** Transitioned technology divisions from feature-led delivery to a modern Product Operating Model with accountable squads and discovery practices.
- **Global Leadership:** Built and led global organisations of 200+ staff across engineering, QA, operations, data and product.
- **Delivery Governance:** Established the PMO, delivery rhythms, capacity planning processes and RAG-based portfolio oversight.

- **Performance Standards:** Implemented competency frameworks, performance standards and structured learning pathways to standardise performance across engineering teams.

## Cloud Infrastructure, Reliability & Resilience

- **Uptime Targets:** Introduced a 99.99% uptime target across DevOps and SRE while rebuilding observability, structured logging and incident management.
- **Serverless Architecture:** Coded a serverless AWS-based risk engine reducing processing time for millions of calculations from hundreds of hours to 20 minutes.
- **Regulatory Resilience:** Strengthened operational resilience to ensure compliance with DORA, MiFID II, CySEC and HK SFC expectations.
- **Global Infrastructure:** Directed the modernisation of market-infrastructure environments to support global scale and institutional-grade reliability.

## AI Strategy & Engineering Productivity

- **AI Integration:** Launched an enterprise AI strategy that embedded LLMs directly into engineering, operations and client-facing products.
- **Productivity Gains:** Achieved 20–30% productivity gains through automated workflow redesign, technical tooling and governance.
- **Compliance Framework:** Defined the governance framework for AI integration to ensure engineering productivity remains compliant and secure.

## Chief Technology Officer

**EXANTE**

Jul 2024 – Present

Cyprus / Zug / Remote

Directing the technical evolution and architectural overhaul of a global multi-asset brokerage and trading platform serving retail, HNW, institutional, and white-label clients across 60+ markets. Maintaining full accountability for architecture, engineering, product, cybersecurity, market data, and IT operations.

- **Scalability & Core Architecture:** Orchestrating the redesign of core systems to achieve 10x increases in user capacity, order flow, and real-time data ingestion.
- **AI Strategy & Implementation:** Embedding AI directly into the SDLC, automated testing, and IT operations, resulting in 20–30% productivity gains across engineering workflows.
- **Engineering Leadership:** Reshaping the global engineering and IT operations organisation by implementing rigorous performance discipline and competency frameworks.
- **Technical Governance:** Standardising the delivery lifecycle through structured planning, discovery practices, portfolio management, and precise capacity forecasting.
- **Stakeholder & Product Alignment:** Re-establishing deep collaboration with front-office and white-label partners to accelerate platform adoption and ensure technical delivery aligns with commercial growth.
- **Operational Resilience:** Introducing a 99.99% uptime target and rebuilding observability and incident management to meet DORA, MiFID II, and global regulatory standards

## Deputy Chief Technology Officer

**Crypto Finance AG (Deutsche Börse Group)**

Feb 2023 – Jul 2024

Zürich, Switzerland

Strengthened technical governance, platform resilience and delivery across the trading, custody and tokenisation business units.

- **Platform Replacement Strategy:** Conducted a technical evaluation of internal platforms and recommended the full replacement of the trade execution system.
- **Execution and Vendor Management:** Managed the business plan and full RFP process for the selection of a new platform, delivering material business advantages including more competitive trade pricing and reduced trading costs.
- **Migration Architecture:** Led the integration project and client migration to the new platform, which successfully mitigated operational risk.
- **SDLC Engineering:** Modernised the SDLC by implementing improved Agile methodologies, continuous integration and automated testing to achieve accelerated delivery and reduced defects.
- **Technical Guilds:** Established cross-functional engineering guilds focused on databases, messaging and GCP to standardise architectural patterns and foster innovation.
- **Digital Asset Security:** Directed the engineering of a security-critical hardware signing device with embedded software integrated with HSMs for institutional-grade digital-asset custody.

- **Infrastructure Scalability:** Identified and addressed technology challenges to achieve non-trivial improvements in scalability and cost-effectiveness.

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**Co-Founder & Chief Technology Officer**  
**Covario AG**

Feb 2020 – Dec 2022  
Zug, Switzerland

Co-founded a digital-asset prime brokerage delivering low-latency algorithmic trading, custody and financing services to HFT hedge funds and institutional asset managers.

- **Foundational Platform Design:** Designed and prototyped the core technology platform from inception, establishing a high-performance architecture capable of handling millions of transactions per second.
- **Systems Architecture:** Engineered the full-stack infrastructure including risk management, reporting, reconciliations and real-time monitoring systems to meet exacting institutional demands.
- **Regulatory Engineering:** Authored and enforced the technical governance policies for security, secrets management and disaster recovery required for the FINMA securities dealer licence application.
- **Engineering Leadership:** Recruited and mentored a high-calibre organisation of 35 engineers, data scientists and quants, fostering a culture of innovation and rapid "fail-fast" experimentation.
- **Client & Investor Engagement:** Consulted directly with institutional clients on the technical implementation of trading strategies and presented the technical roadmap to partners and investors.
- **Operational Integrity:** Managed the technical RFI process for pitching the business to Tier 1 banks and participated in operational due diligence for all service providers.

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**Chief Technology Officer**  
**Argentière Capital AG**

Oct 2012 – Sep 2019  
Zug, Switzerland

Directed all technical operations for a \$3.5bn global hedge fund specialising in equity volatility, fixed income, FX and systematic relative value strategies

- **Foundational Build-out:** Recruited as the first employee to design and establish the complete technology estate including data centres, networking and trading system infrastructure.
- **Serverless Risk Engineering:** Architected and developed a high-performance risk management engine utilising AWS Lambda to execute millions of calculations, reducing processing time for complex scenarios from 20 hours to minutes.
- **Quant Trading Environment:** Designed a comprehensive trading environment featuring an algorithm test framework with full simulation of trade activity including borrow fees, slippage and true cost of trading.
- **Integration and Automation:** Engineered automated trade feeds from MarkitWire to facilitate automatic affirmation and instrument generation within Fusion Invest.
- **API Infrastructure:** Developed a full REST API infrastructure using open source technologies to provide traders with direct access to portfolio and compute systems via Python, R, MatLab and Excel.
- **Operational Systems:** Designed and delivered back-office reconciliation systems for trades and positions, resulting in material cost savings and reduced operational headcount.
- **Team Leadership:** Recruited and mentored a team of seven direct reports and three quants, utilising GitLab and TeamCity to maintain a full CI/CD build process.
- **Governance and Oversight:** Owned technology governance, board reporting and the presentation of security and disaster recovery policies to external investors during due diligence

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**Freelance Consultant**

Feb 2012 – Sep 2012

Designed the REST API for the Imagine Trading System and created the earliest iPad applications for portfolio and risk visibility.

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**Systems Director**  
**Arrowgrass Capital Partners LLP**

Feb 2008 – Jan 2012  
London, United Kingdom

Directed the technical engineering and infrastructure build-out for a \$2.5bn–\$8bn hedge fund established as a spin-out from Deutsche Bank AG.

- **Spin-out Engineering:** Managed the complex migration of proprietary trading models, systems and data from Deutsche Bank AG to a new independent infrastructure.
- **Infrastructure Design:** Architected the entire technology estate from inception, including the selection and configuration of trading systems, data providers and hardware vendors.

- **Global Deployment:** Led the search, lease negotiation and technical fit-out of institutional-grade office spaces and data centres in London and New York.
  - **Custom Development:** Built bespoke technical solutions for cash wire payments to prime brokers and settlement monitoring systems with automated exception management.
  - **Regulatory Compliance Systems:** Designed and implemented automated reporting and monitoring systems to meet SEC, FSA and LSE regulatory requirements.
  - **Risk & Position Management:** Engineered intra-day risk reporting and illiquid asset pricing tools for the Distressed Opportunities Fund using Markit Partners data.
  - **Operational Resilience:** Designed and executed rigorous business continuity testing through the simulation of various disaster recovery scenarios.
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## IT Director

### Deutsche Bank AG – OMNIS Hedge Fund

Oct 2004 – Feb 2008

London, United Kingdom

Technical lead for an internal hedge fund incubator, preparing the technology stack for eventual independence as Arrowgrass Capital Partners.

- **Advanced Pricing Architecture:** Managed the design and development of an advanced distributed pricing system to augment the Imagine trading platform.
  - **Quantitative Tooling:** Developed a suite of scenario analysis and pricing tools used by traders for real-time risk management and pre-trade decision making.
  - **Treasury Engineering:** Built high-performance applications providing vital risk, treasury and cash management functions for daily business operations.
  - **Infrastructure Strategy:** Acted as the primary technical liaison between the fund unit, Deutsche Bank IT and external vendors to build a scalable infrastructure in preparation for the spin-out.
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## Project Manager / Senior Developer

### Deutsche Bank AG – Convertibles Trading

Jun 1999 – Sep 2004

London, United Kingdom

Directed the technical design and code authorship for dbconvertibles.com, which became the premier online analytics and trading system for convertible bonds.

- **Award-Winning Architecture:** Engineered the platform to win the Euromoney award for four consecutive years.
  - **Front-Office Tooling:** Authored a suite of proprietary analysis and pricing tools utilised by research and proprietary trading teams.
  - **System Modernisation:** Delivered Deutsche Bank's first online trading system within the Equities division.
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## Project Manager / Senior Developer

### Bankers Trust – Warrants & Convertibles Trading

Mar 1998 – May 1999

London, United Kingdom

Designed and developed btwarrants.com, the first website to publish Warrants prices directly from the trading floor in real time.

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## EARLY CAREER

Union Bank of Switzerland – Project Manager / Senior Developer – Equities Technology | 1994–1998

NatWest Bank – Project Manager – Credit Card Services | 1993–1994

Credit Suisse First Boston – Head of PC Development – Trading Technology | 1991–1993

Citibank – Senior Developer – Strategic Business Solutions | 1990–1991