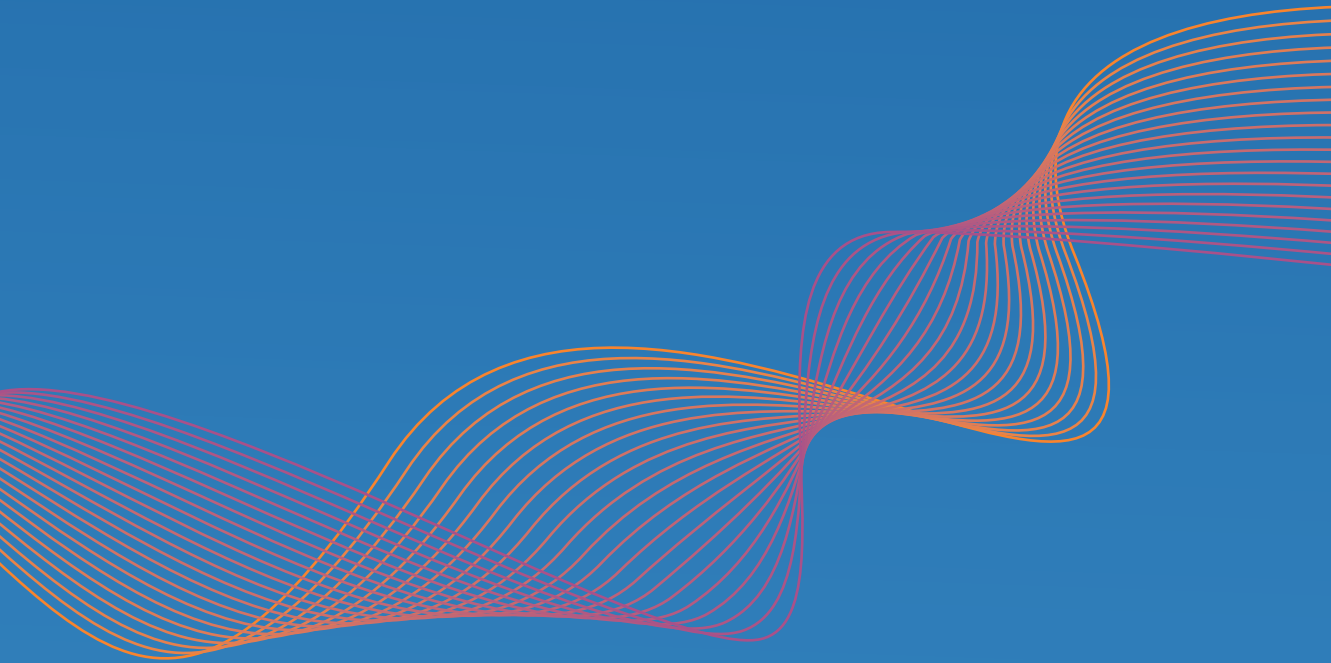

The Governed Intelligence Fabric

Architecting Trusted Data Platforms for Infrastructure at Scale



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DeepScience

The Governed Intelligence Fabric: Architecting Trusted Data Platforms for Infrastructure at Scale

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Preface

In this book you will learn about the escalating demand for powerful and scalable data platforms that can be governed, secure, transparent, and trusted in infrastructure at scale. In the cloud, hybrid, and distributed infrastructure world where organizations are growing, data plays an important role in the efficiency of operations, strategic decisions, automation, and artificial intelligence. However, trust in organisations is undermined by the quality, lineage, accessibility, data protection and responsible usage of data.

The book adopts a practical, forward-looking and architectural approach to building a governed intelligence fabric—one that spans and integrates data engineering, metadata management, data quality, security, observability, interoperability, and intelligent automation. It explores through the lens of modern platforms the various ways in which complex infrastructures can be unified in an information environment, while maintaining governance control. The emphasis is on scalable data pipelines, policy-driven data access, master data and reference data management, real-time processing, cloud native architectures and AI powered operational intelligence.

This book provides the mission to connect these two worlds of technical platform engineering and enterprise governance. It also shows that governance does not need to be considered as a standalone compliance exercise, but instead can be part of the design, deployment, and operation of data platforms. This helps organizations achieve greater consistency, mitigate more operational risk, enhance their regulatory postures, and facilitate faster trusted analytics and AI deployment.

The book is for architects, engineers, technology leaders, researchers, and others interested in enterprise-scale data environments, blending a conceptual understanding with practical architecture. These chapters all play a role in providing a more comprehensive vision of infrastructure in which trusted data can safely, intelligently, and efficiently travel across systems. It also points to the need for flexible governance models that evolve as technologies, business priorities, regulations and globe-spanning operational data ecosystems evolve and grow. Overall, The Governed Intelligence Fabric represents a plan for building resilient data ecosystems capable of delivering ongoing growth, innovation, and responsible intelligence, at scale.

Rohit Gorle

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