INFOSYS INFORMATION GRID

Unlock value from data in the digital world @ scale

Enterprises are struggling to accomplish the goal of the data @ scale primarily due to reasons like – difficulty in adopting a technology focused approach, absence of Data Lake Management, continuous evolution of technology, federation of data, constant integration with newer data sources, ensuring compliance, ensuring security and meeting the need for an elastic and scalable platform.
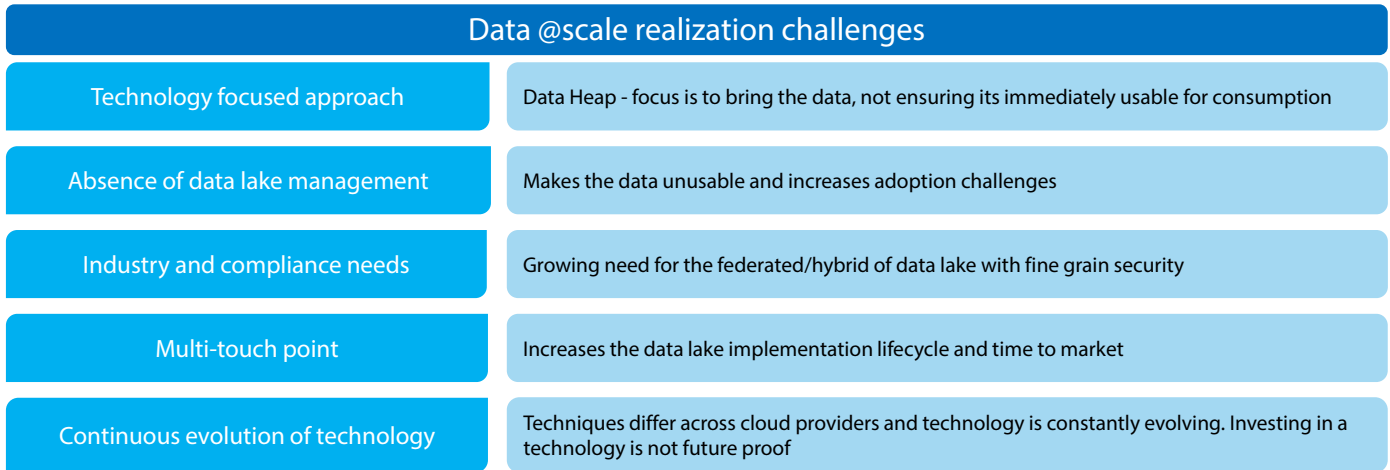
Data @scale realization challenges	
Technology focused approach	Data Heap - focus is to bring the data, not ensuring its immediately usable for consumption
Absence of data lake management	Makes the data unusable and increases adoption challenges
Industry and compliance needs	Growing need for the federated/hybrid of data lake with fine grain security
Multi-touch point	Increases the data lake implementation lifecycle and time to market
Continuous evolution of technology	Techniques differ across cloud providers and technology is constantly evolving. Investing in a technology is not future proof

Figure 1: Data @ scale realization challenges

Enterprises need to unleash the full potential from "All" of their data assets to lead in the digital world to address these challenges. Investing in data foundation initiatives to foster a culture of making data-based decisions is inevitable. Infosys Information Grid provides the necessary framework to build an enterprise data foundation.

Infosys Information Grid – enabling data @ scale

Infosys Information Grid is a metadata driven data processing framework that abstracts underlying big data technologies and allows digitizing the data supply chain by leveraging native technology both on-premise and cloud. The platform is built on a solid data foundation management with extreme automation adoption. It is platform agnostic with an intelligent flow, all driven by metadata and decoupled design and runtime components.

Key Operating Principles:

• A simplified and intuitive user interface that takes care of the whole process, right from inception to operationalization with extreme automation to reduce the time to market.

• A capability driven component neutral and cloud native architecture with metadata driven plug and play components helps to abstract the technology challenges and accelerate implementation

A comprehensive data lake management that covers all the 9 yards of capabilities starting from ingestion, curation, harmonization, data publishing, security, multiple instantiations, data life cycle management simplifies the maintainability and increases adoption.

The framework works with prefabricated design templates that provide a huge acceleration to organizations in the entire data engineering supply chain.
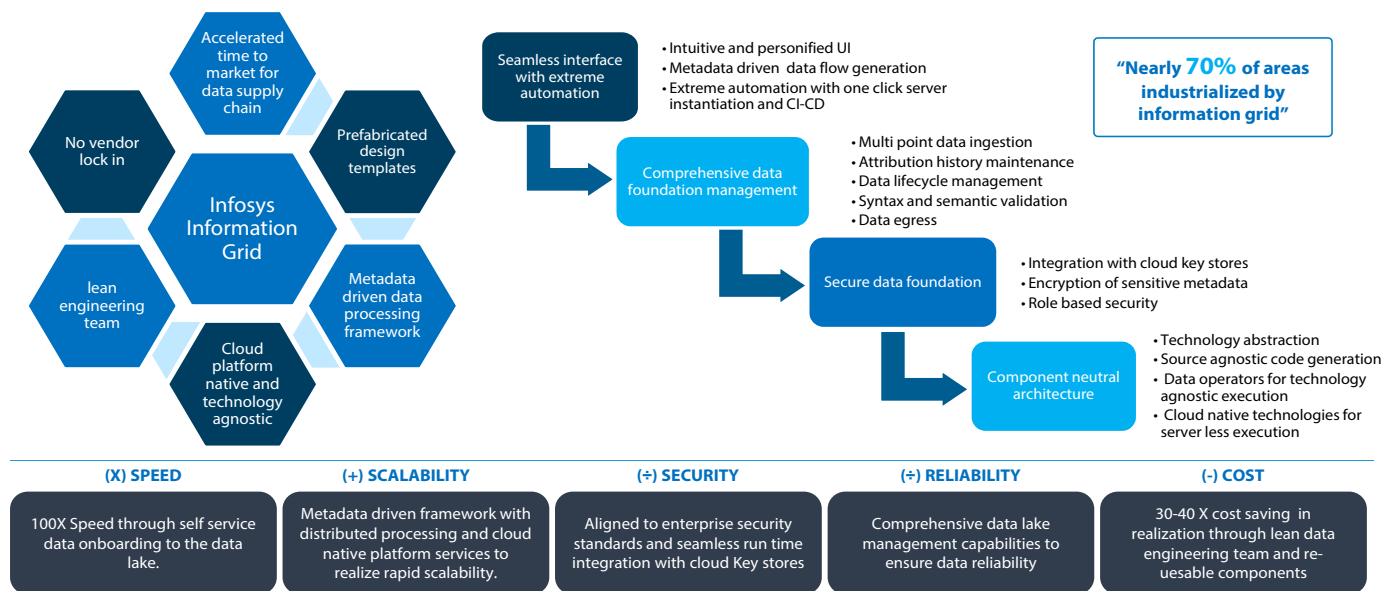
Figure 2

Accelerated time to market for data supply chain

No vendor lock in

Prefabricated design templates

Infosys Information Grid

lean engineering team

Metadata driven data processing framework

Cloud platform native and technology agnostic

Seamless interface with extreme automation
- Intuitive and personified UI
- Metadata driven data flow generation
- Extreme automation with one click server instantiation and CI-CD

Comprehensive data foundation management
- Multi point data ingestion
- Attribution history maintenance
- Data lifecycle management
- Syntax and semantic validation
- Data egress

Secure data foundation
- Integration with cloud key stores
- Encryption of sensitive metadata
- Role based security

Component neutral architecture
- Technology abstraction
- Source agnostic code generation
- Data operators for technology agnostic execution
- Cloud native technologies for server less execution

"Nearly **70%** of areas industrialized by information grid"

(X) SPEED	(+) SCALABILITY	(÷) SECURITY	(÷) RELIABILITY	(-) COST
100X Speed through self service data onboarding to the data lake.	Metadata driven framework with distributed processing and cloud native platform services to realize rapid scalability.	Aligned to enterprise security standards and seamless run time integration with cloud Key stores	Comprehensive data lake management capabilities to ensure data reliability	30-40 X cost saving in realization through lean data engineering team and re-usable components

Figure 2: Value realization leveraging Infosys Information Grid

Case Study

Client Context:

One of the largest coffee retailers embarked on Cloud Big Data journey to address following challenges:

- Need to modernize the customer data analytics platform
- High cost and time to market of business experiments across stores
- Scalability and investment needed from data engineering for meet future business needs
- Estimated an implementation roadmap of 2 years to realize value

Infosys Solution:

Infosys helped in industrializing a next gen boundary-less data lake @scale powered by Information Grid Solution that enabled:

- An agile, self-service analytics solution to meet rapid prototyping and time-to-market needs to run analytics use-cases and deliver business value
- Extreme digitization of data lake foundation management resulted in 70% industrialization of data intake and engineering life cycle.
- Capability driven solution architecture that abstracted technology complexities and usage of native server less or ephemeral clusters
- Self service data management capabilities

The solution enables benefits like:

Quick set up of data foundation and improves data engineering productivity by 30-50%

1. Significantly improves development effort and ensures faster time to market:
   - By enabling capabilities such as intake, curation, harmonization, semantic validation, attribution history management, data life cycle management, data publish, security and multiple data lake instantiation
   - By leveraging out of the box templates and metadata driven configuration that drives new/ change in pipeline or integration within a day or two &retrofitting historical data in few hours

2. Drives operational efficiency through a seamless workflow and intuitive user interface

3. Reduces project risk by reducing dependency on technology experts and allows adoption of new technologies, as needed. This is enabled by having a metadata driven component neutral architecture that encapsulates technology complexity.

4. Enhances data usage by leveraging data governance and data quality techniques embedded in the new data foundation

5. Seamlessly allows enterprises to drive standardization, best practices, re-usability and extreme automation

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Navigate your next

For more information, contact askus@infosys.com