

OPTIMIZING DATA INTEGRATION ACROSS DISPARATE SYSTEMS WITH ALTERYX AND INFORMATICA

Satish Vadlamani¹, Jaswanth Alahari², Aravind Ayyagiri³, Prof.(Dr) Punit Goel⁴, Prof.(Dr.) Arpit Jain⁵ & Er. Aman Shrivastav⁶

¹*Independent Researcher, Osmania University, Amberpet, Hyderabad-500007, Telangana State, India*

²*Independent Researcher, University of Illinois Springfield, Nellore, Andhra Pradesh, India*

³*Independent Researcher, Wichita State University, Yapral, Hyderabad, 500087, Telangana, India*

⁴*Research Supervisor, Maharaja Agrasen Himalayan Garhwal University, Uttarakhand, India*

⁵*Independent Researcher, KL University, Vijaywada, Andhra Pradesh, India*

⁶*Independent Researcher, ABESIT Engineering College, Ghaziabad, India*

ABSTRACT

In today's digital age, organizations increasingly rely on data-driven decision-making, which necessitates seamless integration across multiple, often disparate, systems. Efficient data integration is crucial for creating unified insights, enhancing operational efficiency, and improving overall business performance. This paper explores the optimization of data integration using Alteryx and Informatica, two powerful tools that address the challenges of handling diverse data sources and formats. Alteryx's user-friendly interface and advanced data preparation capabilities streamline workflows, enabling quick integration and analysis. Informatica, with its robust data management and integration functionalities, ensures scalability and governance for enterprise-level data processing.

The combination of these platforms allows businesses to overcome traditional data silos, enhancing accessibility, reliability, and accuracy. The study highlights key strategies for integrating structured and unstructured data from cloud, on-premises, and hybrid environments. Additionally, it underscores the importance of automation and data quality management in reducing manual intervention and errors.

Through real-world examples, this paper demonstrates how organizations can improve decision-making processes by leveraging Alteryx's agility and Informatica's robust infrastructure. Ultimately, the optimization of data integration with these tools fosters innovation, drives productivity, and helps businesses stay competitive in a rapidly evolving digital landscape.

KEYWORDS: *Data Integration, Alteryx, Informatica, Disparate Systems, Data Automation, Data Quality Management, Cloud and On-Premises Data, Scalability, Data Silos, Workflow Optimization.*

Article History

Received: 15 Nov 2023 | Revised: 19 Nov 2023 | Accepted: 23 Nov 2023
