

BIG DATA MIGRATION WORKBENCH

Business Imperatives

Data volumes in the digital world are growing exponentially and to remain competitive and relevant, enterprises today need to harness this big data to gain meaningful business insights. This trend is not just limited to non-traditional data, but also traditional data sources (CRM, ERP, Transactional systems) that are generating far too much data today, than they were a few years ago.

Industry Trends

- Social media and online channels are generating petabytes of data everyday
- Growing business volumes are also driving enterprise transactional systems to generate huge volumes of data
- Smart devices are generating huge volumes of data that need to be processed in real time, to gain operational insights
- An estimated 2.8 ZB of data in 2012 is expected to grow to 40 ZB by 2020. 85% of this data growth is expected to come from new types; with machine-generated data being projected to increase up to 15 times by 2020. (Source: IDC)



Big Data Warehouses

Big data warehouses address the challenges posed by big data, by providing:

- A cost-effective and distributed storage solution for large volumes of data
- Horizontal scalability that can support future needs
- A distributed processing architecture that can efficiently process large volumes of structured, semi-structured, and unstructured data
- A platform for enabling data-discovery and deep analytics that can leverage all available data assets
- Huge volumes of data that exist in traditional warehouses need to be migrated
- Transformation logic embedded in the form of SQL procedures and scripts need to be ported to big data compatible scripting languages (Pig, Map Reduce, Spark, etc.)
- Validation of the migrated data and code is necessary to ensure that the output generated from the big data platform are same as those from the traditional platform

But migrating to a big data platform has its own challenges, such as:

Infosys big data Migration Workbench is the solution that addresses the complexity involved in migrating to big data platforms, by automating manual tasks.

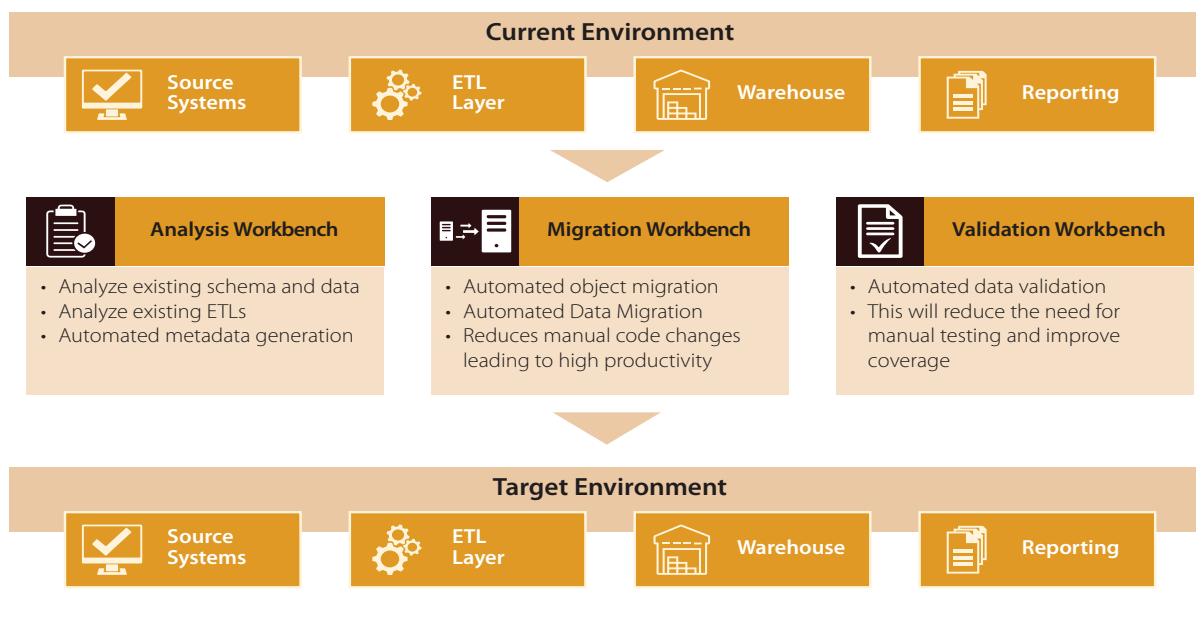
Solution Overview

Infosys Migration Workbench can accelerate your data migration from a traditional warehouse to a big data warehouse.

The workbench consists of three components:

- Analysis workbench - Analyzes the existing data warehouse schema, and generates useful metadata from it
- Migration workbench - Automates migration of database objects such as tables, procedures, and data
- Validation workbench - Automates data validation for the migrated data

Big Data Migration Workbench



Case Study

Client Context

The client is one of the largest banking institutions in the U.S, catering to almost all channels in consumer and small-business banking.

Existing data platform volumes had already begun to strain the available storage and processing capabilities of the AML line of business. Even with archive solutions that archived data older than 15 months, the platform was not even able to store 15 months of transactional data, a business requirement to meet regulatory guidelines.

Infosys Solution

Infosys proposed to build a big data platform to address the current pain points and support the future aspirations of the group.

A one-time migration of the existing data (70 TB) into the big data platform was done. Every day, an incremental load (2 TB) was ingested into the platform.

Components of the Infosys big data Migration Workbench were leveraged to accelerate the migration process.

Benefits

- Faster time-to-market:** ~40% improvement in productivity due to automation, and 20% reduction in time-to-market
- Lowered cost of migration:** A reduction of US\$25,000 in project cost
- Risk mitigation:** Enabled the storage and retention of larger volumes of data which aligned with the regulatory needs required for AML



- Reconciliation and DQ:** Framework-based data enablement, to ensure accuracy of data movement and processing

For more information, contact askus@infosys.com

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