THE EVOLUTION OF DATA INTEGRATION: FROM ETL TO ET

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INTENDA

When we look at data and how the requirements for integration have escalated, it all comes down to the data environment. What is the process? Where does it end up? The real question is, how is it being managed and what method or solution works best for each user or organisation?

Fraxses is more than just a low-code/no-code platform. It's a solution that takes fractured data and transforms it into federated data. The evolution of data integration has seen various approaches and tools come and go. Along with supporting the traditional methods of ETL and ELT, Fraxses advances ET - a new approach that represents the future of data integration.

ETL

The traditional ETL approach involves extracting, transforming and loading data from various sources and blending it in a single data warehouse.

This method is inherently rigid as it forces businesses and engineers to decide how they want to use their data from the start of the development process. Significant effort is involved if adaptations must be made due to changes in the original requirements.

ETL lacks visibility because everything in the pipeline obscures the raw data and transformations. Another consideration with ETL is that it is somewhat risky, as organisations that base decisions on this method cannot rely on accessing integrated data. The best way to manage and deal with ETL is to acquire the in-depth technical knowledge required to develop and maintain data pipelines.

ELT

There's a way to deal with the challenges that come with ETL. By implementing ELT, an organisation is able to extract and load its raw data into a warehouse and then transform that data into the required outcome or result. This gives the organisation visibility on its raw data, thus making it easier to change or create new transformations. While this approach is an improvement on ETL, it too lacks flexibility when it comes to transformations that need to be altered. Additionally, there is no real-time visibility of those transformations

when dealing with the question of 'How was this calculated?', and no true lineage to the source systems.

Furthermore, implementing this method calls for the expertise and understanding of how to connect to a database, data warehouse or data lake. It requires the skill of analysts who can write SQL, Python, Scala etc.

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ET

A new way of integrating data is to 'bring it home' by simply extracting and transforming it. The removal of the requirement to load data before it can be consumed makes this method ideal. It reduces complexity and places analysts and consumers at the forefront of their data

warehouse. This allows them to connect to live data and configure transformations that can then be saved as metadata. The ET approach makes data considerably easier to manipulate and assures real-time visibility.

Fraxses empowers organisations to move away from traditional approaches, and systematically integrate their data with real-time visibility and minimal effort. The platform democratises data, allowing for anyone in an organisation to engage with it and deliver new transformations.

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