BigDataStack Software Component developed by LeanXcale

This component permits to aggregate the LeanXcale Database (LXS DB) and an Object Store into a single logical component. This has two main aspects: - “historical” data is moved from the LXS DB towards the Object Store without user intervention - the user may perform single Structured Query Language (SQL) queries towards the aggregated data set without even knowing where the dataset is laid out (this could be in the LXS DB only or in both the LXS DB and the Object Store). The component is responsible for retrieving the data that are split across datastores, join the results and return the response back to the user.

**Input**
A standard SQL query

**Output**
The result set of the execution of the query, containing the aggregated answer of the SQL statement after it was redirected to both the LXS DB and the Object Store.

**Initial TRL**
TRL 0

**Final TRL**
TRL4
End Users

Typical customer would be a customer who both needs the advantages of a traditional relational DB and also the advantages of an Object Store for the older part of its data.

Key Features and Benefits

The Dynamic Orchestrator triggers redeployment mechanisms during runtime in order to adapt applications and services to the changing context and ensure they comply with their requirements. - Features: flexible, learns on its own, fast reaction. - Benefits: ensures applications keep up with their requirements in changing environments.

Essential Information for Users

Novel aggregation of these two data stores, exploiting the unique and diverse characteristics of each one of those, without truly compromising some requirements for the benefit of others.
Seamless

**Standards involved in the development of the component**

JDBC specification as the connector with the component.

**Implementation in BigDataStack Use Cases**

This component could fit any of the use cases. However, the bigger the dataset, the more relevant is this component.

**Differentiators from competitors in the market**

First technology of its kind