

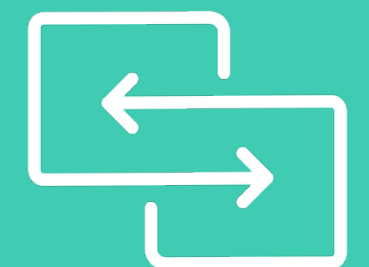
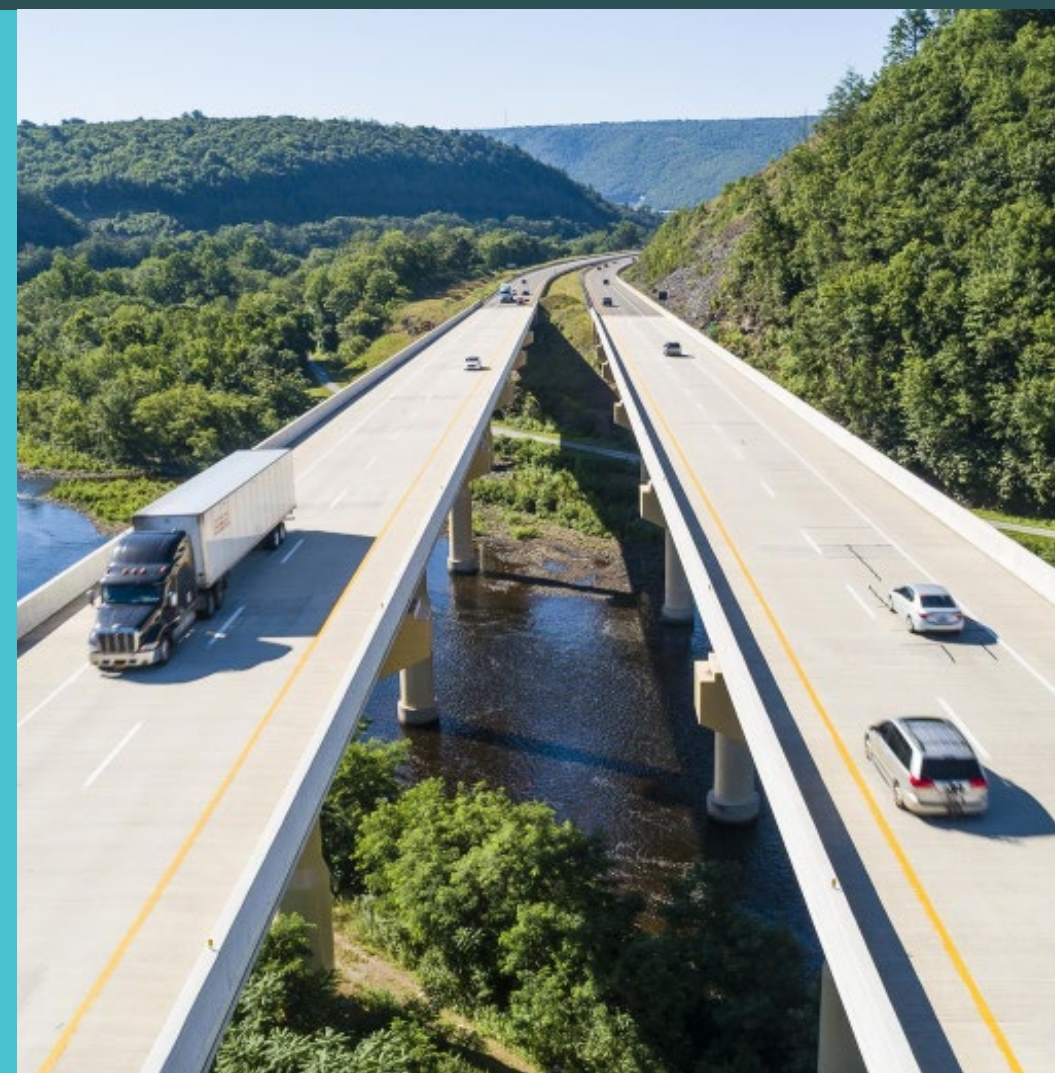
# SIMPLE Reference Architecture implementation

# SIMPLE

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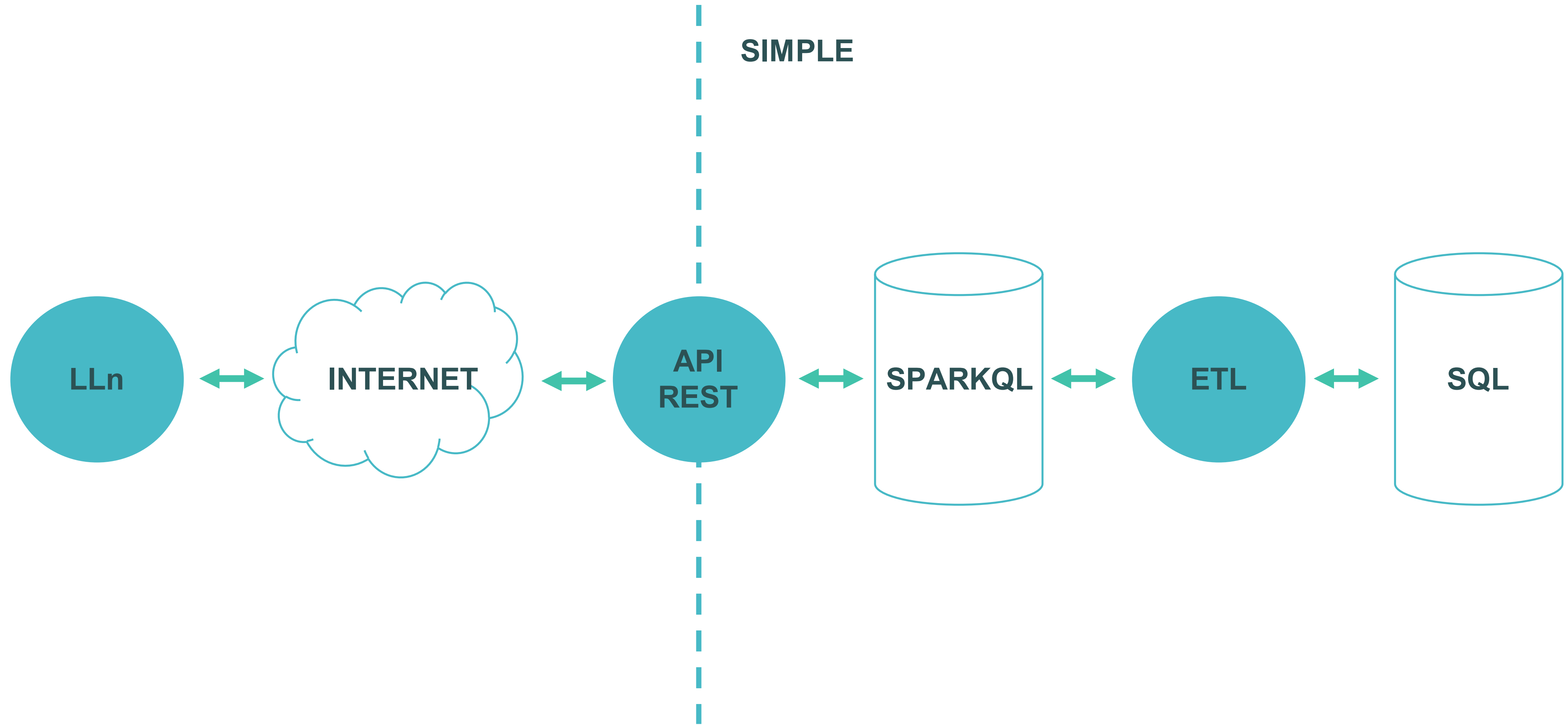
# Index

Semantic adapter	1
Index	2
Service Registry	3

# Semantic adapter

Implementation of the semantic adapter in SIMPLE

# Semantic Adapter



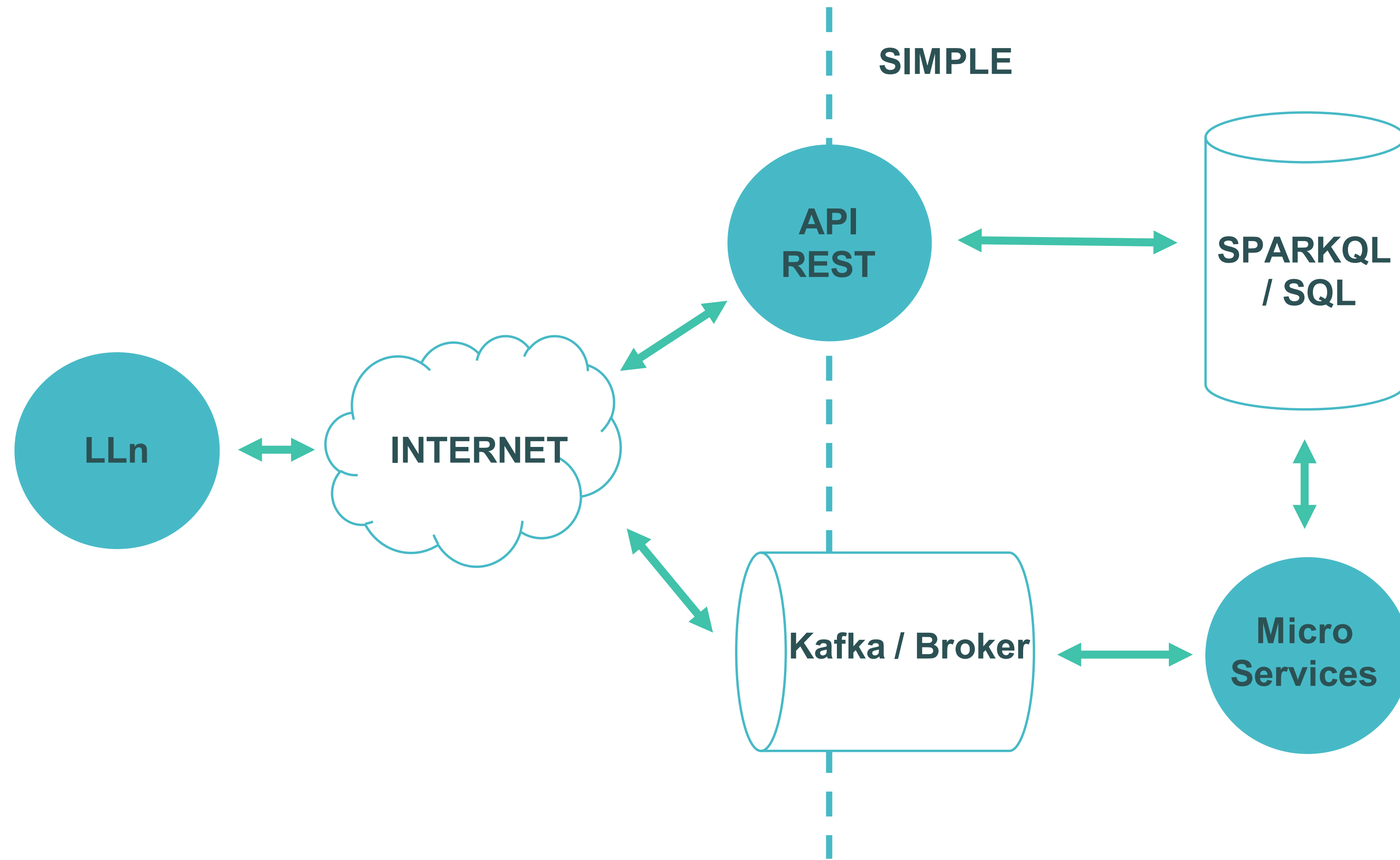
# Semantic Adapter

1. The external communication is made through an API REST operation which has two main fields: the query and the IAA data (user, password, PKI, UUID of the ontology queried).
2. The sender of the query has to know its own credentials in SIMPLE and the UUID related to the data to be queried. The UUID can be obtained before from a SIMPLE notification (API, email, etc.) when the data is created in the platform.
3. The query is made internally from the API REST to the sparkql server.
4. The results are filtered depending on the UUID provided to assure authentication and returned to the original sender of the query.
5. The data in the sparkql database is updated by an ETL process.

# Index

## Implementation of the Index in SIMPLE

# Index



# Index

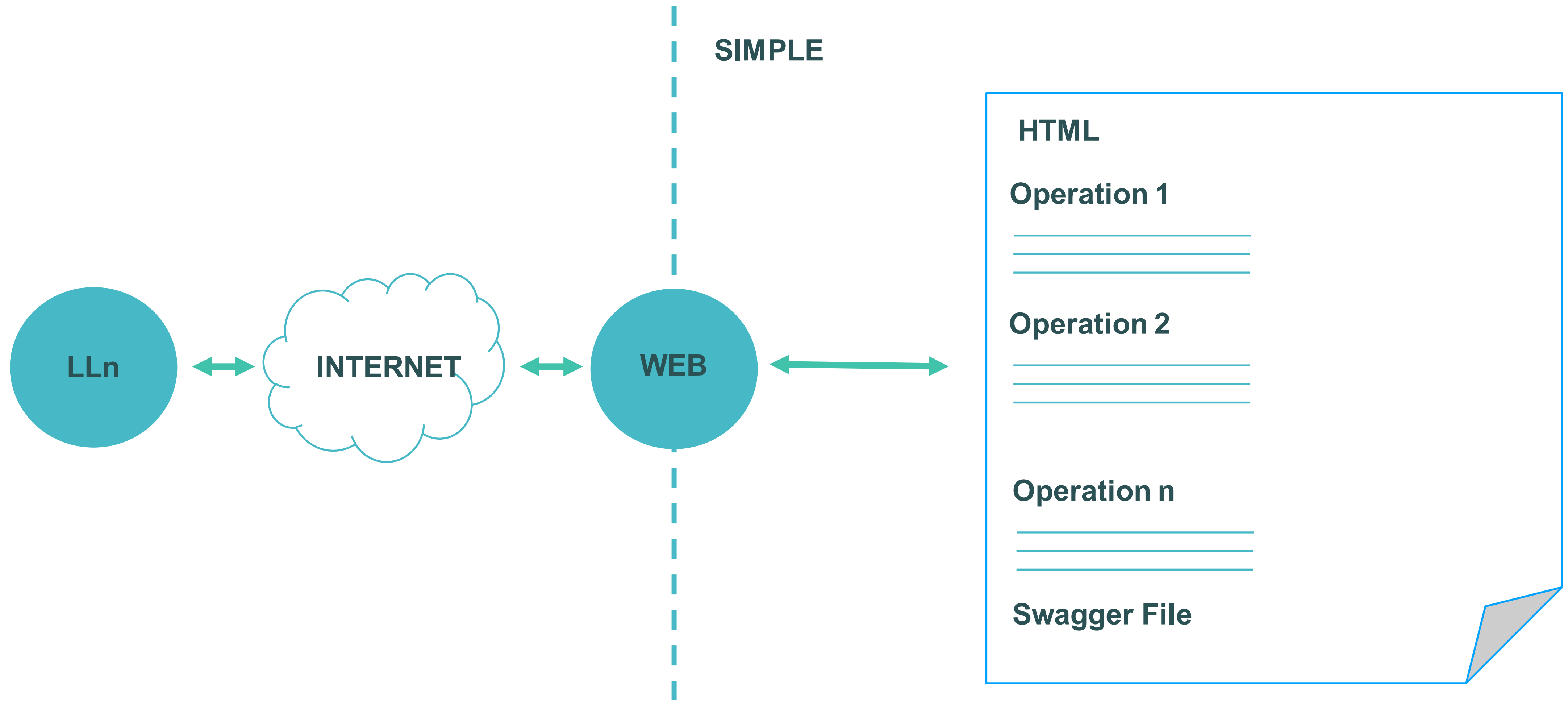
1. When data is created in SIMPLE a notification is sent to the involved entities through an API operation, an email or another transport which includes the UUID of the related data.
2. At the same time a topic with the UUID of the data is created in the data broker.
3. External LL can subscribe to the topic in order to receive events related to the data. The UUID is used to subscribe to the authorized topic.
4. Once the data in SIMPLE is outdated (for instance when the transport has finished time ago) the topic is deleted to save technical resources and clientes are disconnected.



# Service Registry

Implementation of the Service Registry in SIMPLE

# Service Registry



# Service Registry

1. As first step it is a HTML page with a list of all the public operations available in the API REST.
2. Each operation is described in a human readable language.
3. A swagger file with the technical definition of each operation is available to download.
4. The path to access to the service registry may be the same for all LL.
5. It includes operations related to the semantic adapter, the index, the service registry and its own description.

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