



Taking XML data from multiple sources, and preparing it for downstream analysis by open source and advanced business intelligence platforms

Business Need

Most enterprises have systems that generate massive amounts of data, often created and stored on different systems and in different formats. Travel operators need to explore this data so departments across the enterprise can use it in their daily functions. Today, many organisations are using business intelligence platforms such as open-source Kibana, but are facing challenges in getting their data into the right state in a timely manner.

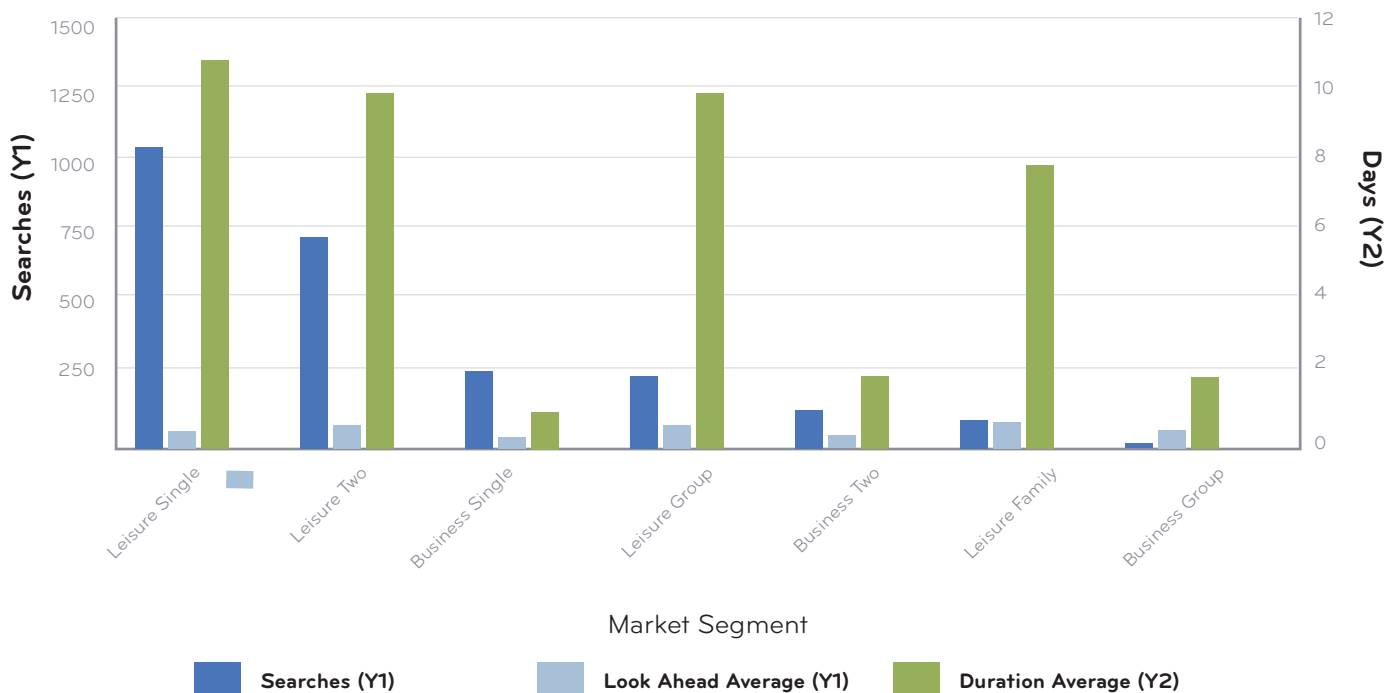
Much of travel transaction data produced by Central Reservation Systems (CRS) or Passenger Service Systems (PSS) today is in XML or JSON formats. Raw XML/JSON data such as search requests and replies need careful sanitising, matching and processing to make it 'fit' for analysis and reporting.

The Solution - Trio Data Engine

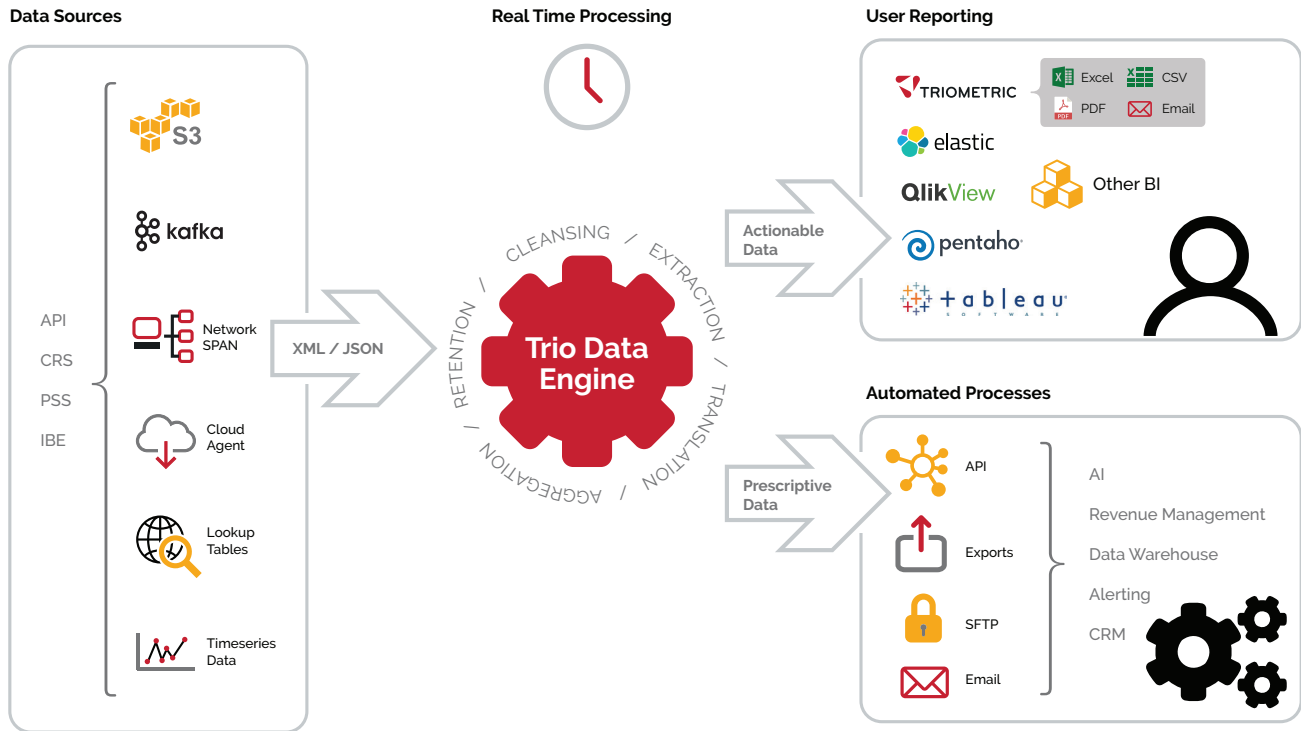
The Trio Data Engine combines our scalable platform and data enrichment expertise to help travel providers analyse their XML/JSON data using functionally-rich BI environments. The Trio Data Engine addresses the limitations and challenges of collecting and preparing vast quantities of search and offer data running through travel APIs. Our platform is designed for high volume real-time XML/JSON data collection and preparation that can feed your need for clean source data for your BI or AI engine. Only clean and timely sourced data will give you the visibility into your business that you can trust. Poorly performing channels can be analysed for underlying causes and encouraged to improve.

How Trio Data Engine Works

The platform acts as a processing hub for a variety of functions such as cleansing, extraction, translation, aggregation, retention and analysis. The prepared data can then be fed into a variety of other BI systems for further analysis and consumer presentation to extract insights for business. Alternatively, the Trio Engine's own analytics and presentation layer can be used for this purpose.



The Data Flow from Collection to Analysis



Collection

The engine captures raw API traffic from a variety of cloud or on-premise sources including networks, cloud based object stores or big data message queues.

Cleansing

Data cleansing identifies and corrects messy, raw data, such as errors and anomalies. Cleansed data is transformed into a consistent unified format for easier consumption.

Extraction and Translation

Using business rules or lookup tables, the data is extracted and blended from different data sources into a homogeneous format. The transactional data needs to be merged with the more static data that defines products, clients and other business entities. We work with you to define the optimised meta data

descriptions and data relationships for your business. Data can be enriched to produce additional data sets that make it easier for your downstream processes.

Aggregation

Getting data aggregation and data enrichment right can generate significant performance benefits in analysis and reporting capabilities.

Retention

Whilst the emphasis is to feed data to decision making systems, Trio Data Engine can manage the retention of the data on a shorter or longer term basis. For example, if the output system is focused on dynamic pricing, it's ability to store large scale search data (demand predictive) will likely be limited but might benefit from trend type metrics requiring data storage e.g. monthly average or gradients

ABOUT TRIOMETRIC

Triometric is a specialist provider of XML business intelligence and operational analytics to the online hospitality industry. We help customers understand the intelligence embedded in their XML messages. With this insight they are able to identify and quickly remove bottlenecks, spot emerging trends, profitable opportunities and plan and optimise capacity more effectively. Today Triometric technology processes over four billion transactions every day.