

Digital Ad Inventory Management Solution Built Using Kafka

Objective

An Asia based digital advertising enterprise wanted to achieve optimal use of its inventory located in China, India, Singapore, Indonesia, Vietnam, Thailand, Japan & Australia, and to increase its profitability. They were using an inventory booking solution to pre-book the digital inventories based on the advertising requirement but were unable to leverage the locations which received less booking, leading to revenue loss. Rishabh Software was selected as the preferred Big Data Solution provider to improve inventory utilization by processing millions of data in real-time through its Big data services.

Challenges

- › Processing data in real time
- › Tracking of available inventory
- › Optimal usage of ad inventory
- › Improving response time

Approach

Rishabh Software's big data team analyzed the current system architecture and created a proof of concept to solve the inventory utilization challenge. The approach used was divided into various segments to simplify the data for further processing.

The current advertising booking engine was built on Open Source technology, and it generated unstructured data. To process the data, we leveraged JSON and Kafka to handle data with high volume. Moreover, the overall infrastructure required was supported by Amazon EC2 by implementing master-slave architecture for managing various instances.

We also architected the solution to develop data lakes and implement offset id for partitioning. To meet the customer's requirement of utilizing inventory in real-time, a team of 10+ big data engineers was involved in to develop an algorithm, implement infrastructure, coding, testing and deployment.

Business Benefits

- › 100% inventory utilization
- › 20% improvement in response time
- › Improved profitability
- › Scalable solution architecture

Industry Segment

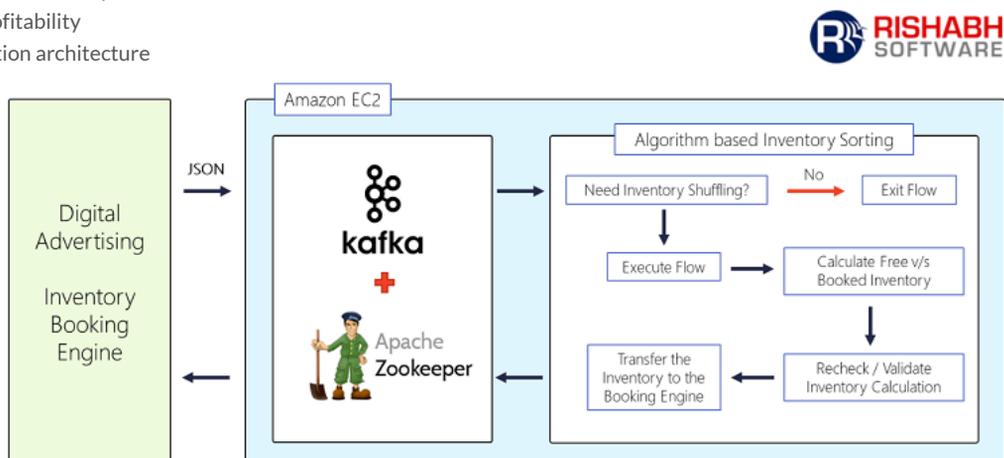
Advertising

Customer Profile

Asia based digital & out of home advertising enterprise

Technology and Tools

- › Kafka
- › Zookeeper
- › PHP
- › JSON
- › JMS
- › Spring Framework
- › MVC



About Rishabh Software

Rishabh Software is a CMMI 3, ISO9001, ISO 27001, Microsoft Gold Partner & Oracle Gold Partner providing application development services & solutions to mid-sized enterprises globally through our offices in the US, UK and India. We leverage the latest technology stacks in Cloud, Mobile, Business Intelligence and other Enterprise technologies helping clients to get the best value of their IT budget. With our team of 250+ application developers, we have implemented 1000+ successful projects across 24 countries. We work on .NET, Java, PHP, iOS, Android, Oracle, IBM and Open Source technologies.



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