Umbrella Case Study

A Leading Online Gaming Company

Real Time Analytics For Gaming

Business Decisions Made Easy & Profitable

Industry	Customers
Online Gaming	30 Million

Popular gaming company leverages real time analytics to make faster decisions that improve Return on Investment & customer experience

Data Lake for near real time data availability

A hugely popular gaming company whose player base is growing swiftly every month, this is the fastest growing skill games business across South East Asia. Millions of records are generated every minute on multiple games played by a huge player base leading to a great volume of complex data.

The company analyses the data to understand aspects like average revenue per player, personalisation and customisation. The analysis, therefore, is highly critical to business and product planning, customer service excellence and marketing promotions. From the original data setup that the gaming company had however, the data they retrieved for analyses was always nearly a day old, directly impacting critical decision making. The additional load of internal users retrieving data from the system was also slowing down production significantly.

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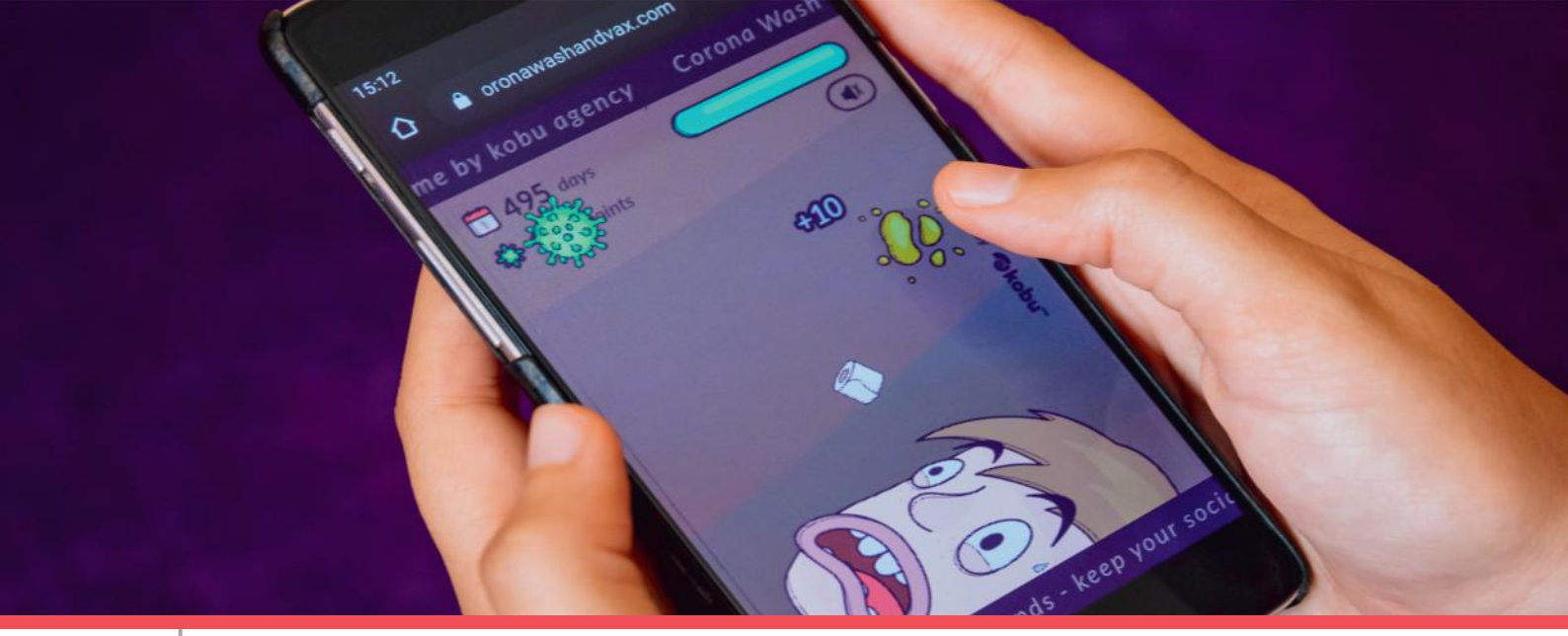


Data Warehouse for improved productivity

Umbrella's Big Data solutions enabled the client's team to fetch and visualize real time data quickly. With this the team is able to make optimal business decisions that engage players more effectively leading to an increase in the marketing Return on Investment (ROI). The solutions also enhance infrastructure efficiency by bringing down data and process load on the production environment.

About Company

The online gaming business has grown rapidly from when it was founded in 2012 and is the first company to launch skill games for cash prizes. Users across 7 countries play games on their desktop and mobiles to win cash prizes. The company is a pioneer in the Indian gaming space and their aim is to deliver superb user experiences.

Business Need

With a vast amount of data and logs generated on each user for every game per minute, the gaming company plans customized offers like putting up real time money while a player is engaged with a game, marketing campaigns and makes business decisions that improve their revenue.

- A very small window exists for making decisions based on the logs/data to get the gamer engaged
- The existing systems took significant time, almost a day for a few reports to process while their need was to process the majority of reporting in near real time.

The Technical Challenge

With millions of records getting generated every minute, a huge volume of complex data was being uploaded to a primary server and exported to a secondary server from where the visualization tool fetched the data for analysis. The data that got published to the tool was always a day old and the huge volume was overloading the production database with the reporting functionality.

85-90% of the analytics could be done on t-1 data but some actions required latest data. Also, a number of internal users need to generate a few reports simultaneously based on the same data. Due to the huge data load, the number of users accessing reports had to be restricted. The immediate need was to reduce the load on the production server and increase frequency for real time analytics and other purposes.

Umbrella's Big Data Analytics Solution

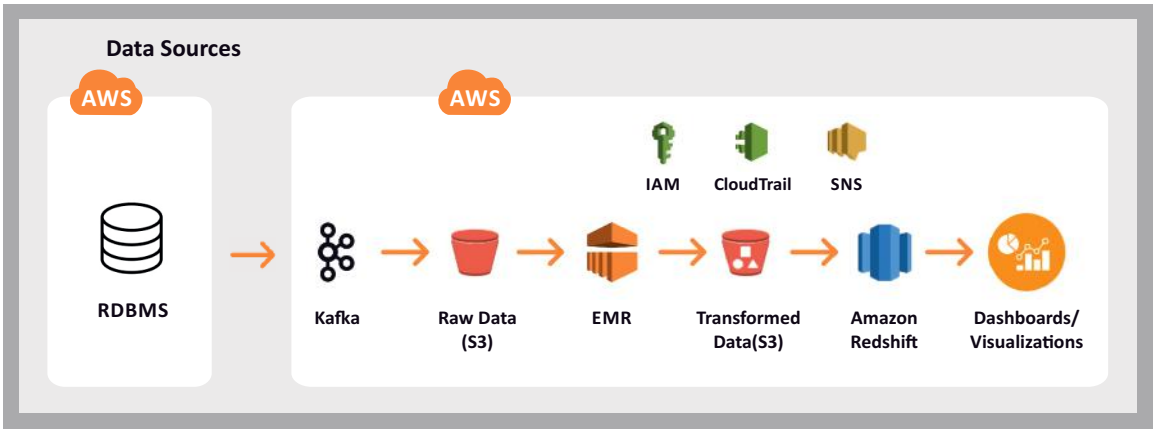
Umbrella analysed the data challenge that the business was facing and determined that a three step approach would enable the gaming company to relieve the load from the production environment and to leverage real time data for analyses. The steps involved creating a data lake, streaming the data to a repository and finally data aggregation for visualization tool to quickly read and analyse the data.

Managed Services for superior data infrastructure

Data Lake

To streamline data integration from multiple sources, Umbrella first created data lakes that effectively function as a better data repository and remove the entire burden of the reporting workload from the production and secondary servers.

To drastically reduce the time taken to publish the data, Umbrella used tools like log stash to read data continuously from the server, streaming to Kafka that temporarily holds the data before it is moved to the data lake on AWS S3 using spark consumer running on EMR.



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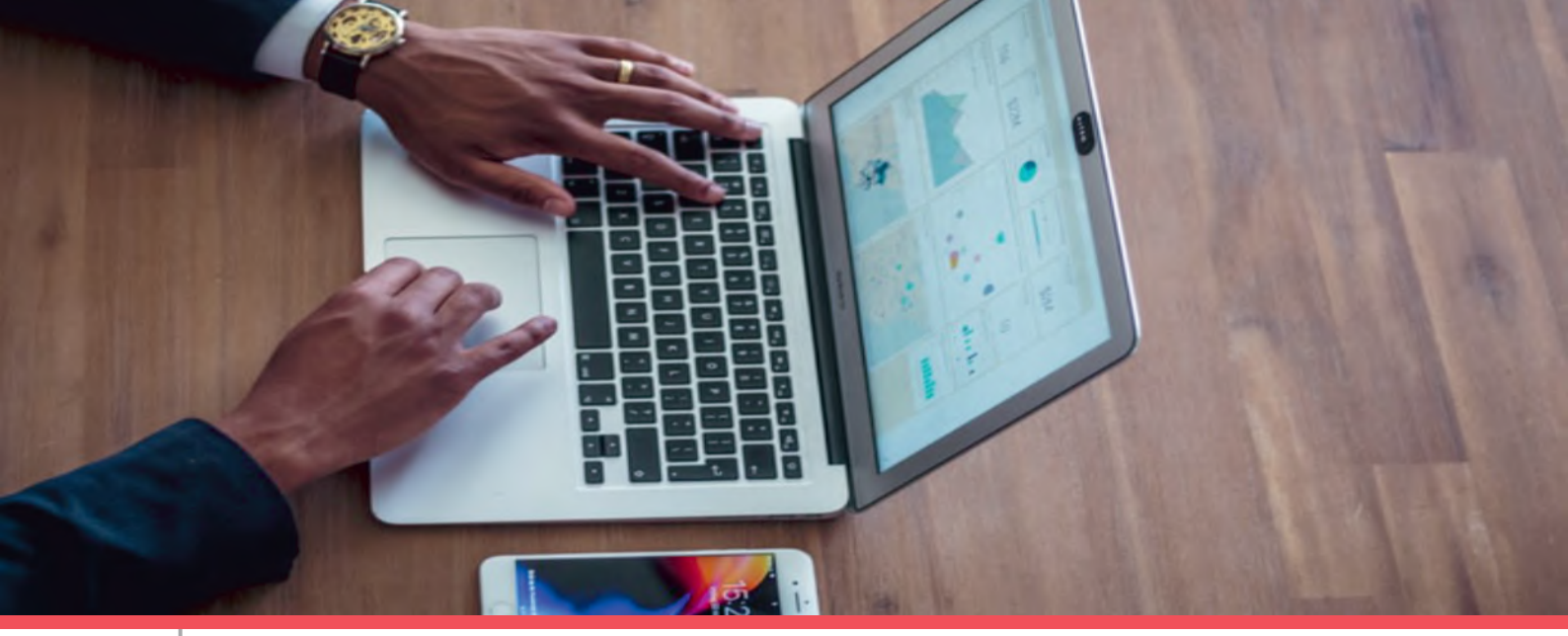

Visualization for easy and user friendly analytics

Powerful insights for quicker decision making

Data Warehouse

The raw data in the data lake is processed / aggregated using Spark jobs that are running on AWS EMR. Data aggregation helps generate reports on factors like number of active users for a particular game and number of games being played at a particular time. Aggregated data thereafter is uploaded into Redshift Datawarehouse and used for visualization.

Data Visualization

The visualization tool reads the data from RedShift and helps users with analytics through user friendly dashboards. With the dashboards, users are able to get a quick view of the parameters they require and are able to easily manipulate the data to achieve their objective.

Business Benefits

- Makes data available in near real time for analytics empowering better action on critical business decisions improving the ROI and customer experience
- Enhances employee productivity by enabling them to run multiple complex queries simultaneously on the Datawarehouse without impacting production environment
- Reduces overheads related to Big Data Infrastructure by optimising AWS managed services including Amazon EMR, Redshift and other tools
- Increases pace of innovation and time to market by leveraging cloud agility

info@umbrellainfocare.com
www.umbrellainfocare.com
+91-9873892249

aws partner network
Premier Consulting Partner

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