
# Order Delivery Management

How long does it take to deliver an order a customer has placed? Is the in-progress order going to meet the timelines or is it at **risk of missing timelines?** These are some of the common questions any organization has when dealing with customer orders.

**Business Challenge**

One of our Telecom clients **had to ensure that they delivered all orders within the delivery timeline.** The order delivery process involved several departments - Network, Service Delivery, and Finance. They faced challenges in delivering fixed broadband solutions which involved just configuration to maybe even building a new fiber route.

Our challenge was to **collect data from different departments and large variations in timelines and sometimes a network expansion was required before even the order was delivered**. These posed major challenges while predicting delivery timeline estimation.

## Approach and Solution

- Our approach was to use the ML-based Order Delivery Timeline Estimation Model developed on Databricks that estimates when a consumer will receive their order.

- **The entire order is divided into several tasks,** and the model is trained using historical data to predict how long each task will take to complete.

- Historical Data from various sources are ingested in Azure Synapse.

- As the order progresses, **the time taken to complete each task is compared against the initial prediction** to understand delays and risks in order delivery timelines. The total time required to finish the order is then calculated by adding up all the tasks.

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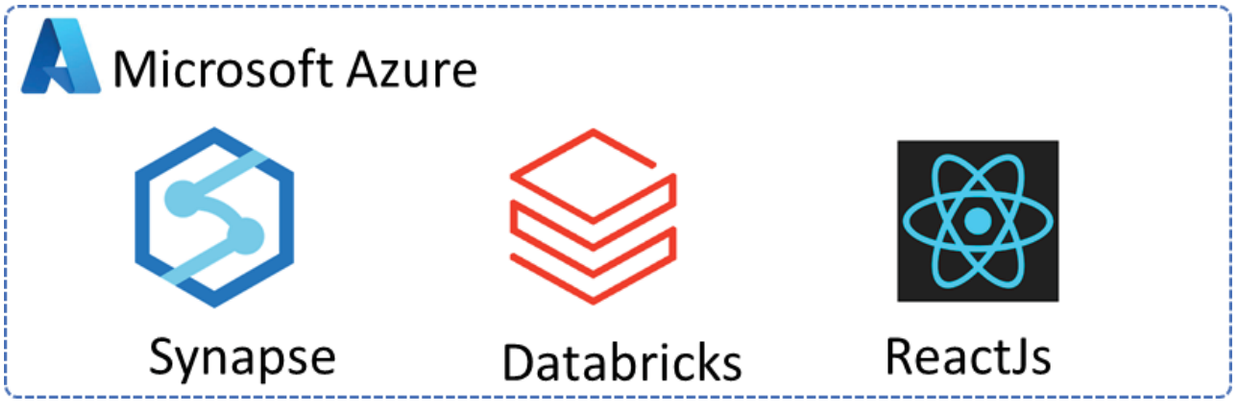
- A react-based dashboard was provided to visualize the real-time status of Orders, delays, and progress.

- The entire solution is built and deployed in Azure.




**Benefits**

- **End-to-end view of various tasks** in order and identification of bottlenecks in the process
- **Proactive action on delayed tasks** to ensure overall order completion within timelines improving customer satisfaction

**Technology used:**

- Azure, Azure Synapse, Azure Databricks, ReactJS

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