



Case Study

Using ML to drive postpaid migrations

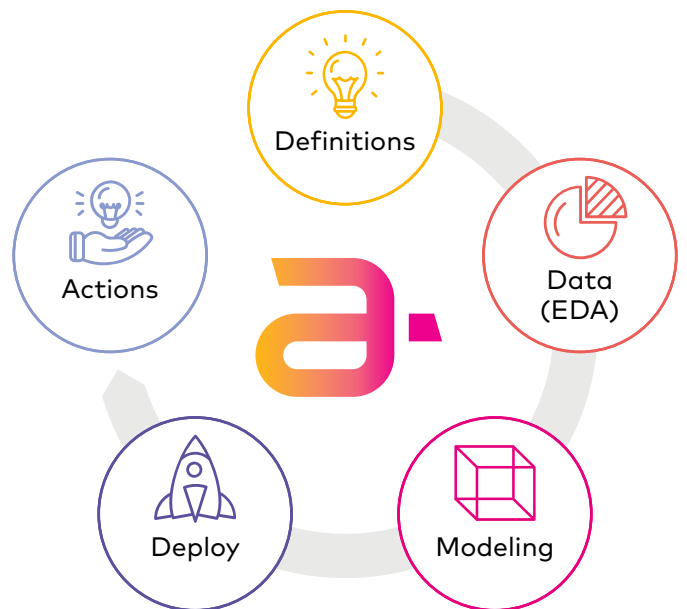
The challenge of converting customers

The lifetime value (LTV) per postpaid customer far exceeds the LTV for prepaid customers. Communication Service Providers (CSPs) are therefore driven to target prepaid, also known as a, pay-as-you-go (PAYG) customers and entice them to move to postpaid services.

The challenge is how to effectively (and efficiently) target a prepaid subscriber base of millions. A recent engagement with a CSP highlighted that they were sending out communications to all prepaid subscribers every month without using a propensity model to estimate what decisions the subscribers were likely to make. The conversion rate per month was monitored, and the monthly KPI for the number of subscribers converted to postpaid was met. This type of ongoing communication however has the potential to impact the Net Promoter Score (NPS) and customer engagement and holds the hidden risk of losing other potential revenue.

Consideration was therefore given to a change in strategy. Instead of sending communications to all the subscribers, the focus would be on identifying those most suited to postpaid tariffs and addressing them with personalized migration offers. The added benefit with this approach being that the rest of the PAYG customer base were then free to participate in more relevant contextual campaigns. The end-to-end challenge was analyzing and categorizing all subscribers; creating and executing real time personalized campaigns; and effectively fulfilling the generated demand.

Blending ML outcomes with real business processes



"By offering a PoC on actual customer data, we were able to demonstrate that the model really works. By working directly with the business stakeholder, we were able to position the model in a clear business context. The combination of these two resulted in a successful project with clearly measurable results."

Or Zaloscer

Head of Marketing Services, Amdocs

Switching to targeted campaigns

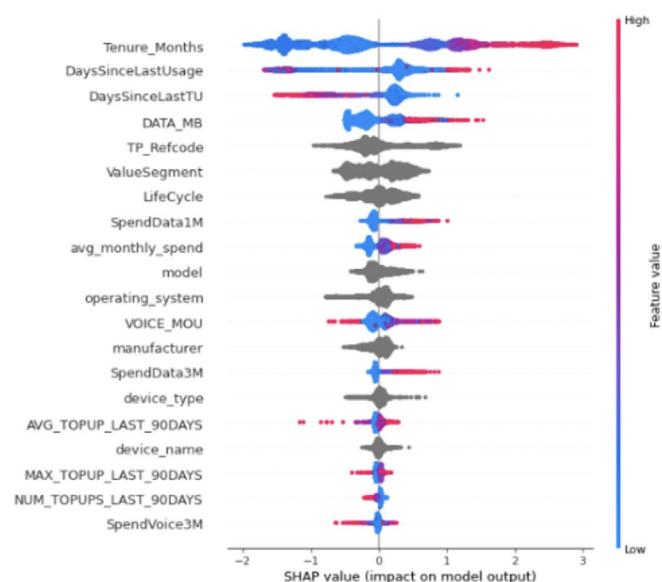
The objective set was to significantly reduce the number of subscribers targeted monthly, and instead target those customers who were most likely to want a postpaid solution, thus maintaining the same number of responders. The Amdocs Data Intelligence Consulting Team knows their customers and their customer bases in turn, and the business challenge was very well understood.

The Amdocs Machine Learning (ML) model was conceptualized, designed, and tested on real data prior to engaging actively with the customer. The model scored each customers' probability to migrate, and demonstrable results were available from day one.

One of the most powerful features of the model is that it gave the customer clear sight of the optimum point of minimal targeting and maximum response. To enable this, it was necessary to evaluate the key migration drivers and identify, at a customer level, the behaviors that have the highest impact on the decision to migrate.

Once operationalized it was possible to pinpoint the optimal minimal number (of specific) subscribers to target and still meet the migration KPI.

ML alone does not deliver significant value. Most ML projects fail as they try to run on siloed data, with limited cross-functional cooperation, and the output from ML models is often not **utilized effectively** in the business process.



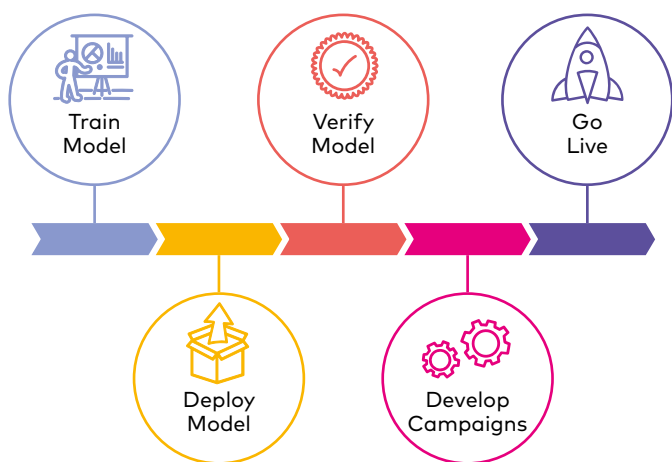
The Amdocs approach is to work directly with the business teams, focusing on delivering real-life results that impact business KPIs (instead of simply selling ML to a Data Science/ Business Intelligence department). By providing a truly end-to-end solution, we are able to ensure that the ML output is used to provide significant business value by seamlessly incorporating ML into real-life campaigns.

Generating a ROI early on

Thanks to a detailed understanding of the customer, their data, and their business, as well as the end-to-end capability that the Amdocs system delivers, it was possible to embark on a project with an ambitious timeline.

During the development stage the model was designed and tested in real CSP data. New data aggregations were prepared and refined. Validated system attributes were created to score the probability of each subscriber migrating to a postpaid solution. In parallel, new procedures were defined and implemented which automated the scoring on a monthly basis. This enabled periodic retraining of the model to ensure ongoing accuracy and long term consistent results.

Before implementation the model was trained twice (to optimize its ability to learn and evolve). Amdocs then developed and QA'ed the new campaign logic leveraging fully the new ML attributes. End to end, the entire process took less than three months.



During the early inception of the project the number of Amdocs enabled migrations grew by 7.5%, and the percentage of total monthly postpaid migrations derived from Amdocs campaigns continues to climb month on month.

Not only did the project deliver significant business value to the customer but it also directly improved customer experience across the PAYG base, more focused targeting freed a substantial amount of customers to receive relevant offers and resulted in valuable improvement in NPS scores.

Success measurement

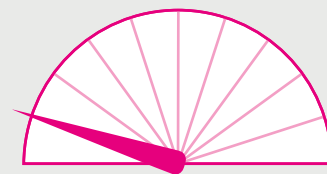


60%

of the PAYG base were freed up for contextual offers.

10%

increase in NPS as a direct result of contextual, relevant offers.



It's a win-win

The Amdocs Data Intelligence Consulting Team provides a single point of accountability, combined with in-depth industry best practices and client knowledge, and delivers significant business value in the shortest possible time to market. During this project, only the subscribers that were more likely to convert were targeted, massively reducing the number of subscribers targeted for prepaid to postpaid (P2P) migrations.

Targeting a smaller subset of the prepaid subscriber base also freed-up a huge number of subscribers for other contextual offerings, such as engagement and reactivation campaigns, as well as revenue-increasing campaigns.

This resulted in an improved customer experience, a more engaged subscriber base, and an increase in revenue lift.





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Listed on the NASDAQ Global Select Market, Amdocs had revenue of \$4.3 billion in fiscal 2021.

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