Why IA is the Right Way to Navigate Around Cancelled Flights

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INTRODUCTION

The 2020 pandemic shook the world. Virtually all industries felt the weight of slowdown or complete shutdown—and travel was one of the hardest hit. As COVID-19 spread, countries rapidly put travel restrictions into place. On top of that, people avoided travel unless it was absolutely necessary. By April, air travel dropped by 95% and airlines reported losses for the first time in years.[1]

While the airline sector is sure to recover, the timeline is uncertain. Businesses may be starting to come out of lockdown,[2] but high unemployment rates and a general reluctance to travel make it unclear when people will be able to fly or feel comfortable flying again. Some estimates suggest that it could take two to three years for the industry to get back on track.[3]

To move forward, airlines must start addressing some of their biggest challenges. The pace set today will make a huge impact on how quickly they will achieve full recovery. To understand how accurate those recovery estimates are, we should look into factors that could drive airlines to return to normal, such as their readiness to deal with the **current crisis, operational efficiency, level of automation, customer loyalty,** and **user experience.**

We have classified airlines into three categories according to their level of preparedness.

- The first category combines airlines that were reasonably well prepared and those that had sound risk-management processes in place. Such companies may have recognized the impact of a pandemic but had not considered an event that prompted a total shutdown. These airlines have been able to put contingency plans into motion and are now contemplating how they will emerge once they can fly again.

- A second category includes those who had not anticipated COVID-19 and felt a level of shock. Now, though, they seem to be running day-to-day operators but are not thinking too far ahead.

- Those in the final category were not at all prepared and never considered something like the pandemic. These airlines were shocked to the core, had no real strategies in place, and decided to suspend their operations temporarily, leaving many of their ticketed passengers with uncertainty, and are still trying to recover. This third group is looking to industry organizations such as IATA, Department of Transportation (DOT) and the government to take the lead on how to come out of the situation.

[1] https://www.cnbc.com/2020/04/23/coronavirus-us-airlines-set-to-report-their-first-losses-in-years-as-travel-demand-falls.html

[2] https://www.epam.com/insights/blogs/5-factors-to-consider-for-a-successful-post-covid-19

[3] https://www.researchgate.net/publication/342051795_Forecasting_recovery_time_in_air_transport_markets_in_the_presence_of_large_economic_shocks_COVID-19
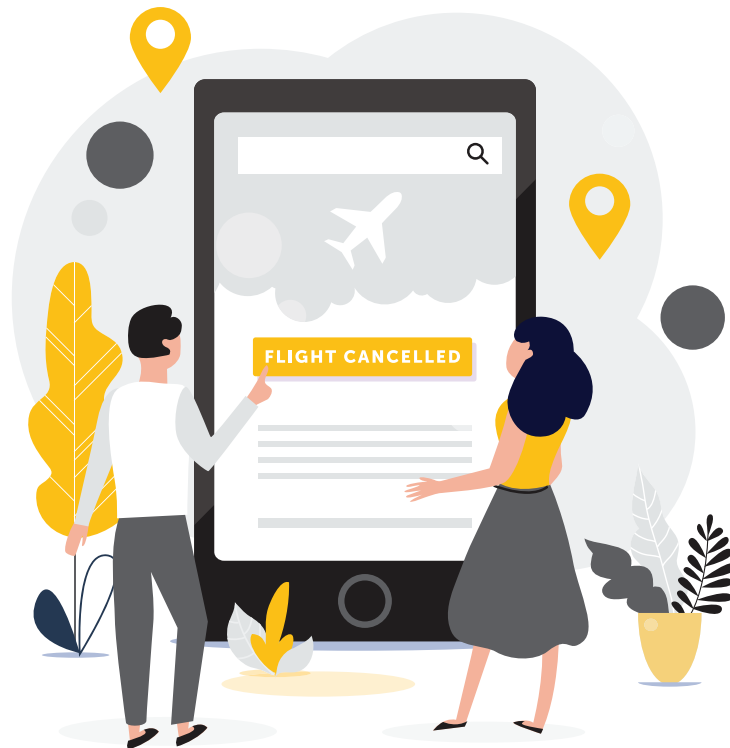
PREPARING FOR A NEXT NORMAL IN TRAVEL

As service restoration dates continuously change and flights continue to get cancelled, day-to-day airline operations have been chaotic. What worked in a pre-pandemic ecosystem is no longer applicable. Not only do customers and regulators have a hard time keeping up with the numerous changes required for air travels today, but the airlines themselves have also struggled to determine the best way to safely put planes and passengers in the air. This friction in operations has resulted in a number of issues, including revenue loss and poor customer, employee, and partner experience.

The first customer contact point for most airlines are their customer service/support teams. Customer service departments are under immense pressure resulting from a 96% spike in inquiry volumes[4] and need to improve their processes for such disruptive situations in the future. Business processes include, but are not limited to, booking, cancellations, billing and settlements, rebooking using vouchers, network planning, fare audit, revenue management, and leakage prevention.

For customers, the situation can be both stressful and frustrating, especially because it is unclear whether airlines have their best interests in mind. There's often no digital self-service path for customers to follow in these situations, which would provide a better, faster, more convenient experience. Instead, they must call customer service within services hours, spending far too long waiting in many cases. When they finally reach someone on the phone and attempt to cancel an upcoming flight, they are offered a voucher to reschedule their plans, which is valid for one year.

It's hard to predict what exactly the future holds, but there are ways to prepare for customer service challenges that we can address today.

Inquiry volumes increased by 96% in response to the pandemic.

[4] https://venturebeat.com/2020/03/19/coronavirus-is-prompting-companies-to-adopt-ai-call-center-solutions/

## IMPROVING AIRLINE EXPERIENCES & OPERATIONS WITH INTELLIGENT AUTOMATION

Looking ahead to the coming months, airlines must set their sights on creating a positive experience for passengers—which is not limited to the airport and flight experience—by connecting the complex network of customers, employees, partners, and technology through automated and data-driven solutions. The first airlines to solve for this will have a competitive advantage.

This white paper explores our findings from working with one airline client to solve a very specific challenge—an ever-increasing backlog of cancellations, vouchers, and rebooking—by implementing full-scale IA, which leverages a combination of chatbots, robotic process automation (RPA), machine learning (ML), data, analytics, and a CRM platform. It is important to note that this airline was not in the first category by its level of preparedness; hence why IA was the most logical choice to solve their operational challenges that were exposed during the pandemic.

We estimate that over 80% of ticketed passengers in the US who had international travel plans within the next six months will consider their voucher options at some point soon. To demonstrate how full-scale IA can improve processes and customer experience across such a complex services network, let's look at the **voucher processing solution,** which covered multiple use cases—from both back and front office. Ultimately, IA made the trip rescheduling experience more pleasant for their customers and employees.

REFERENCE ARCHITECTURE FOR A FULL-SCALE IA SOLUTION

PNR - *PASSENGER NAME RECORD* | **SAR** – *SALES AGENT RECORDS*
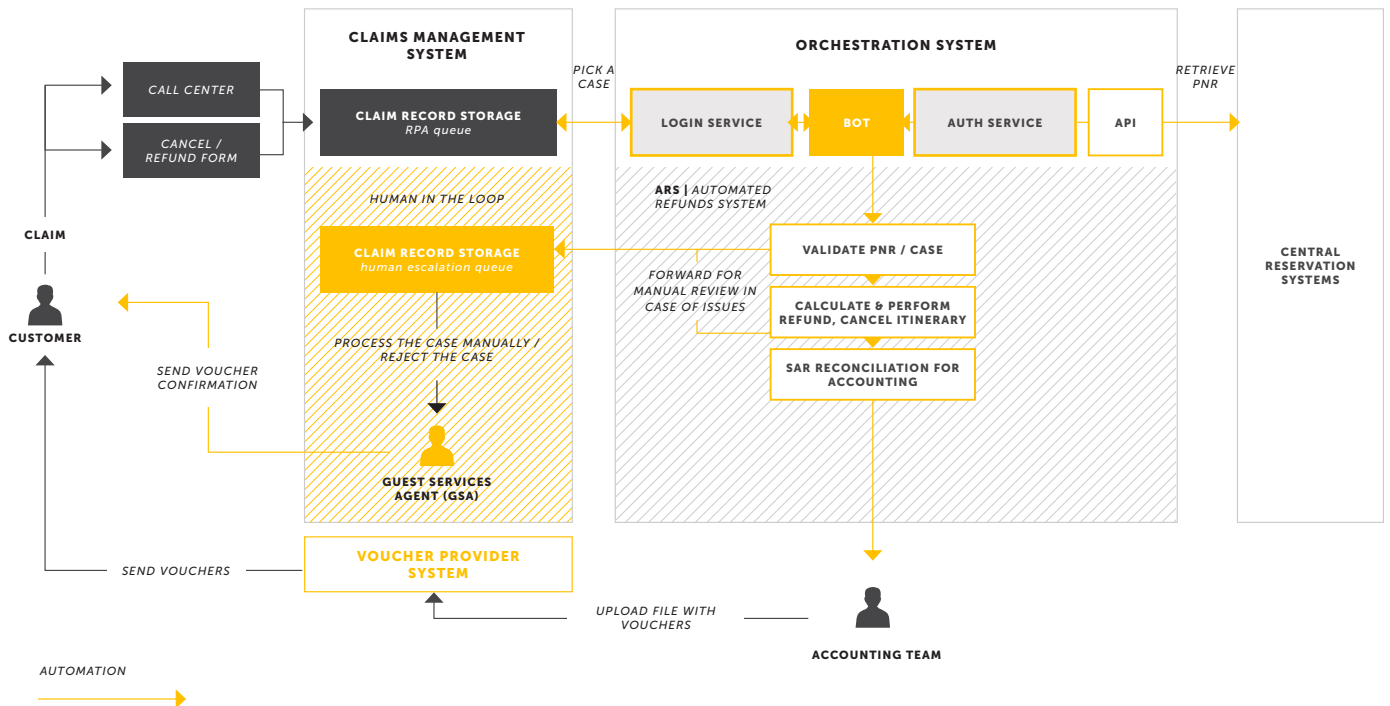
KEEPING CUSTOMERS INFORMED WITH AUTOMATED REMINDERS

Clear, regular communication and frequent touchpoints are key to maintaining trust, especially in our uncertain present. If changes—such as mass flight cancellations and trip rescheduling—are coming, communicating these developments early and often will foster stronger engagement and relationships.

Before the pandemic, an airline cancelling a flight would normally rebook customers on the next available flight. With so much uncertainty around travel, cancellations have become commonplace, creating an unmanageable amount of rebookings. In response, most major airlines have encouraged passengers to make other modifications to the date or destination at no additional cost—even if travel plans have been rescheduled further into the future. For customers who cannot commit to new travel dates, airlines have offered credit vouchers.

Some major airlines are still far from simplifying the reservation modification or cancellation process for customers, even with the availability of some online, self-service options and automated voucher issuance.

In addition, travel vouchers require more record-keeping on the customer side, as they have expiration dates, destinations, and other restrictions hidden in the 'fine print.' So, if a customer decides on vouchers over a full cash reimbursement, the experience should be as frictionless as possible.

Solution: As soon as the pandemic's true impact became imminent, our client wanted to provide more flexibility for customers by expanding their cancellation policies and issuing vouchers under more circumstances than usual. To address the increased operational complications that came along with this, we developed RPA-enabled calendar updates so that customers can stay informed. RPA bots automatically add reminders to a customer's personal calendar, via email, so that they don't miss booking deadlines. This system also provides a backup voucher copy to print, in case customers misplace the original email, since some airlines and partners are unable to look up redemption codes.

Results: 20+% call center volume reduction with a 1.2 point increase on a scale of 1-10 in the customer satisfaction score
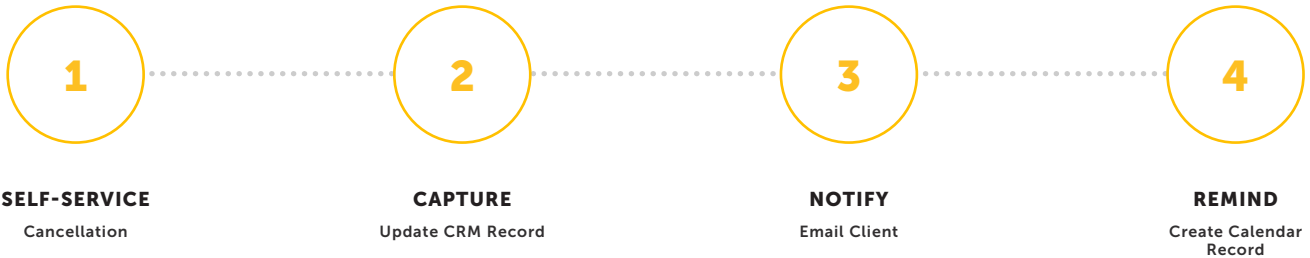

1	2	3	4
SELF-SERVICE	**CAPTURE**	**NOTIFY**	**REMIND**
Cancellation	Update CRM Record	Email Client	Create Calendar Record

FIGURE 2: Voucher Process Workflow

SIMPLIFYING & UNIFYING THE VOUCHER REDEMPTION PROCESS FOR CUSTOMERS

Even though most airlines have processes in place for customers to cancel or reschedule travel plans, they are rarely intuitive. When it comes to redeeming vouchers, customers must typically request a refund by phone instead of turning to self-service options online. What's more, vouchers come with a laundry list of responsibilities for the customer, including keeping track of their confirmation number, taking screenshots, capturing dates and agent names, and requesting a full reimbursement or a voucher issuance.

If customers reserved their flight directly through the airline, it's obvious that they should contact the airline for a refund. But if they booked through an online travel agency (OTA), it's not always clear that a customer should contact the OTA first. They can however, process a refund and share a voucher number with the customer since they were the company that collected the original payment.

There are a few exceptions, mainly if a low-cost carrier operates the flight, in which case the travel agent performs another redirection. If a flight qualifies for reimbursement but a refund is not offered, customers may opt in for another option. The federal Fair Credit Billing Act gives them the right to dispute a charge for services not provided, if they were purchased with a credit card. Unfortunately, these scenarios are seldom smooth and rarely lead to a quick resolution.

It's a complicated endeavor to automate the voucher redemption process and requires working with multiple people in various parts of the business, but it's critical to unifying a complex network of players and simplifying the experience for customers. Without automation, the complexity burdens them with a lot of responsibility—including keeping track of voucher numbers, remembering redemption dates, and more—creating an all-around negative experience.

Solution: We leveraged CRM, chatbots, RPA, and ML to automate the overall data capturing, entry, and sharing process to lift these tasks away from customers. CRM software assigns and presents a customer transaction record to an airline customer service agent for any ticketed passenger, regardless of their booking channel. At various stages in the customer lifecycle, chatbots can instantly and accurately automate more straightforward exchanges so that the call center agent can focus on more complex transactions with customers, which means that they get a better, faster, more satisfying experience.

A call center agent's digital GUI is populated with the customer's personal and travel information that is transferred via RPA from the original itinerary in the airline's internal system or travel agency interface. Data is taken via API calls to third parties, like the travel agency, partner airlines, or car rental company about the reservation to keep this transaction record up to date. This data gathering is automated, and ML reconciles the data using powerful cognitive automation.

Results: 20+% call center volume reduction, 90% automation of request triage, and 85% reduction in manual record handling time

ADDRESSING ON THE SPECIFIC PAIN POINTS OF CORPORATE CUSTOMERS

Airlines' biggest clients are corporate customers. Those who kept travel plans during the pandemic were mostly business travelers. So, when it comes to experience, it's important to ensure that airlines address this group's specific pain points.

For the voucher experience, many businesses use managed travel services with existing waiver programs. However, due to the high volumes of business trip cancellations, refund and voucher processes require close attention.

The reality is that not every voucher for cancelled business trips is automatically applied to a corporate account. Companies are understandably concerned that their current or former employees might be holding vouchers that were supposed to be transferred to the employer.

Solution: *For this particular use case, employees had their travel vouchers without even realizing it. In our rapid solution, RPA automates the reconciliation of data from employee-facing applications, such as Concur and Egencia, with the same applications on the employer side and transfers it from one stage of the process to the next. It also populates travel specialist screens with all data for business-related travelers from a company, including the provision of personal vouchers to each traveler. This solution ensures that all vouchers are accounted for, extended if needed, and stay with a company when business travel resumes.*

Results: *Improved response time and business/customer satisfaction, identified more than $150,000 worth of travel vouchers from over 700 hundred travelers after a single run, and we plan to repurpose it as an audit and reconciliation solution in the post-pandemic phase*

Most airlines have a complex distribution channel and revenue management process, and they work with various travel agencies and partners to expand ticket sales. Successfully managing this process requires robust control and monitoring to eliminate any communication gaps regarding travel changes, from passenger to airline and travel agency to airline. For example, if an airline cancels a flight or modifies itinerary conditions without promptly notifying the travel agency or customer, this could damage the reputation of the agency and airline while frustrating the customer. The pandemic further complicated this network—completely jarring revenue collection operations.

Airlines must make sure that there are no discrepancies between collectable and collected ticket sales due to the increase in changes and cancellations. For instance, when customers cancel through an agency, there is a chance that the cancellation will not be properly registered in the airline's system and could result in fare rule violations by travel agents at the time of ticketing or refund issuance. Fare rule violations were one of the significant causes of revenue leakage in the pre-pandemic world, which is why it's important to have the right systems in place, especially amid crisis-related cancellations.

Solution: We leveraged RPA, ML, a business intelligence platform, and analytics to create a ticket audit solution. RPA analyzes all anomalies by checking them against airline rules, waiver updates, and guidelines. An RPA bot coupled with the ML model runs through existing external and internal itineraries on various fare classes. The resulting report creates a view based on the policies, fare rules, and violation types to expedite the fare audit. The solution then narrows down and prioritizes the list of tickets by violation type, itinerary timeline, and partnering agencies involved. During a fare audit, RPA with help of ML verifies each fare/revenue in every ticket sale/refund against the airline rules routing all exceptions into a human worker queue to ensure accuracy and timeliness in detecting errors and audit completeness. Another RPA bot notifies customers on whether an action is recommended or required directly with a travel agency or airline. This solution is plugged into EPAM IA analytics dashboard, which monitors the status of each bot involved in this process.

Results: 90% reduction in manual work and 98% data reconciliation accuracy to improve compliance, with revenue and operational analytics captured throughout process

1	2	3	4	5	6	7
RECEIVE	**MATCH**	**FILTER**	**HUMAN**	**REPORT**	**NOTIFY**	**TRACK**
Transaction Report	Rules & Guidelines	False Positives & Duplicates	Input Where Needed	Deviation to Accounting	Passangers on Outcome	CS & Accounting Analytics

CONCLUSION

At some point, travel will be widely accessible again—for now, airlines are running at limited capacity as we all adjust to the *next normal*. This is one of the most uncertain times that the travel sector has ever faced, and there's mounting pressure for the industry to accelerate transformation initiatives to get travel volume and readiness for customers to travel back to normal as soon as possible.

Radically different business models could emerge in the near future with a greater emphasis on technology, automation, and seamless integration designed for our new era. Leveraging technology to improve operational excellence and the overall experience between airlines, partners, customers, and employees could help airlines quicken their recovery timelines.

In the near-term, airlines should focus on addressing a few key focus areas. As we have demonstrated through our work with one airline client, optimizing the entire voucher journey could be a perfect intermediate tool for airlines to explore. As with any digital transformation initiative, it is imperative for these operations to be addressed holistically. A well-thought-out and rapid IA solution can add some necessary capabilities and can be efficiently reused in after-pandemic reality, bringing much needed competitive advantage to the airline industry.

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