



## AIRLINES LEVERAGE OPTIMIZATION TECHNOLOGY TO MANAGE COVID-19 SCHEDULE REDUCTIONS

### UNPRECEDENTED TIMES

COVID-19 has severely impacted airlines worldwide, bringing unprecedented changes to travel. Until the virus outbreak, airlines had seen continuous and rapid passenger growth since 2010, says The Points Guy. And as news about the pandemic evolved rapidly, sometimes hour by hour, travel decisions continued to change and passenger demand slipped backward quickly.

"The airline industry has been hit extremely hard by the COVID-19 crisis—even harder, perhaps, than by the events of 9/11 and the 2008 global financial crisis put together," states the Boston Consulting Group.

On March 19, The New York Times broke news that The State Department raised its global health advisory to Level 4, or do not travel, which worsened airline network challenges. Airlines saw demand plummet as a result, and they were left scrambling to make the best decisions for public health, their capacity and network changes.



One airline was already prepared to the best of its ability—United Airlines. "At the beginning of March, United was the first U.S. carrier to cut system capacity as the first signs that domestic air travel would take a hit from the novel coronavirus COVID-19 pandemic," says The Points Guy. And as the pandemic has worsened, United has made history with its ability to rapidly implement broad cuts across domestic and international networks in a time of crisis.

United's response was critical because as a Forbes article notes, "The world's commercial airlines and other aviation businesses face significant financial stress and perhaps bankruptcy in the coming months from the unprecedented, unexpected, and broad shutdown of travel due to the rapid spread of COVID-19."



As such, the airline industry must leverage digital support tools and transform itself to adjust to this new landscape. United has proven to be an industry leader and example in this arena.

## UNITED'S RESPONSE TO THE CRISIS

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Making mass cancellations across flight networks is a significant undertaking for airlines, and especially so for United, the second-largest carrier worldwide. So how was the airline able to prioritize and manage cancellations across networks during rapid changes in travel demand as the COVID-19 outbreak continued to spread?

Since 2014, United has relied on SlickOR's flight cancellation optimization software, which identifies flight cancellations which will cause the least disruption. Historically, the software is used for both small, targeted flight schedule reductions (think SFO morning fog and EWR construction) and bigger schedule reduction events (think Hurricane Harvey, Winter Storm Stella, and Polar Vortex 2019)—all of which are managed seamlessly and autonomously by the airline's team.



When COVID-19 hit, it introduced a scale unheard of for flight schedule reduction. "The typical use case for our Cancels Optimizer software is to primarily drawdown the flight schedule for one or multiple hubs, over a short period," says Ram Yalamanchili, the founder and chief architect at SlickOR. "So, although the COVID-19 use case is certainly tragic and unexpected, our software is scalable enough to drawdown the schedule by these drastic numbers, while creating the least-impact solution to aircraft, passengers, crew, and cost."

United's quick escalation and unprecedented scale of schedule reductions was widely reported, as summarized here:

- March 4th - 10% Domestic, 20% International
- March 16th - 50% Domestic, 50% International
- March 21st - 52% Domestic, 90% International
- March 26th - 52% Domestic, 95% International
- April 2nd - 67% Domestic, 90% International



Thus, on April 2, after multiple rounds of reducing the schedule by varying degrees for the entire network, United stated that the changes resulted in a 67% overall domestic reduction and that overall capacity would be down 78%.

This extraordinary time in travel continues to evolve rapidly amidst uncertainty surrounding the virus and airlines continue to try and optimize flight cancellations.

## **OFFERING A SOLUTION**

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"We see how airlines are struggling both financially and with these large-scale schedule reductions, which are now mission-critical, frequent activities," says Kevin Gibson, SlickOR product director. "In this time of need, we see that SlickOR can help, and we want to be a part of the solution."

To that end, SlickOR is offering airlines the benefit of its Cancels Optimizer software for free for the next ninety days—no strings attached—through a service bureau arrangement. No software to buy, install or set up. Airlines simply provide their flight schedule and reduction parameters for domestic and international, and the system produces an optimized solution in a couple of minutes that minimizes the impact on aircraft, crew, passengers, and costs.

Then SlickOR will walk the airline's team through the schedule reduction solution on a screen-share conference call, explaining why certain flights were canceled over others, allow the team to edit the solution where necessary, and then SlickOR sends the solution to the airline's team in their preferred format.

It's a surprisingly simple approach with the basic data inputs one would expect—flight schedule, revenue, passenger loads, crew assignments, maintenance events—whatever is important to your airline when choosing flights to cancel. So, the complexity is in the optimization, not the process.

## **LEARN MORE**

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If this is something you may be interested in, check out this offer in more detail on our [website](#) or call us directly at 1.800.965.6560.