

THE CHANGING NATURE OF AIRLINE DIGITALIZATION

Where do we go from here?

By Igor Dimnik, Director, Airline OCC and Crew Application Portfolio, SITA FOR AIRCRAFT

Today, airlines are operating in a more challenging environment than ever. Not only are passenger and aircraft numbers rising, in turn stimulating greater need for solid on-time performance (OTP) and rapid turnaround. Increasing regulation, creaking infrastructure and staff shortages are also piling pressure on already stretched organizations. At the same time, passenger and crew expectations are changing rapidly as millennials become the influential majority age demographic in the cabin.

This all means a very different day of operations for airlines as they seek to increase operational efficiency, cost savings, and OTP, while simultaneously trying to reduce CO2 emissions. To compete and perform in this new environment, many airlines are now looking to re-examine their approach to digitalization and start taking advantage of the wealth of data being generated by new generation aircraft.

But where are we now when it comes to digitalization, why and how are airlines changing their approaches, and how do we overcome the barriers to the industry reaping its true potential?

WHERE WE ARE NOW: RAPID ADVANCES STARTING TO STALL

When considering the progress of aircraft digitalization, much depends on the region aircraft are operating in. As Igor Dimnik, Director, Airline OCC and Crew Application Portfolio, SITA FOR AIRCRAFT, explains: “When it comes to North America and Europe, most airlines are fairly advanced, and conversations about the paperless cockpit are less relevant. In much of Asia Pacific, however, regulatory challenges mean that the focus has been on implementing other disruptive technology in the interim – meaning that digitalizing paper-based cockpit processes and introducing electronic flight bags, for example, remain active topics.

“While there remain different focuses and levels of progress in different parts of the world, the primary focus for most has been on digitalizing existing processes. Once this first level of digitalization has been achieved and the strategy starts to mature, many airlines then face the same problem: how to progress beyond the digitalization plateau.”

With airlines keen to achieve the next level of digitalization, many are now reflecting on their original strategy, with a view to making some major changes.

CHANGING AIRLINE PERCEPTIONS AND EMBRACING THE DIGITAL SHIFT

For a long time, much of the airline industry has been playing catch up with digital technology advances. This has typically revolved around digitally replicating the previous paper-based experience by simply transferring it to an iPad, for example, but with far less emphasis on the user experience. This is now changing, with the industry increasingly thinking about how it can harness digitalization and turn it into value.

As Igor explains: “Increasingly, there has been a big shift towards truly understanding how pilots and cabin crew function in their day-to-day life, assessing exactly how they work and what they need, and then developing solutions that enable them to really embrace a digital way of working.”

There has also been a greater focus than ever on optimizing data analytics and exploring how data can be mined in real-time.

Igor continues: “These data insights are integral for empowering operational applications, enabling greater situational awareness, and looking for areas of optimization through things like smart fuel tracking, for example. Following well-documented events at airlines like Thomas Cook, airlines are looking more closely than ever at the bottom line and looking to make savings where they can.

“Wherever they are on their digitalization journey, airlines are trying to maximize the possibilities offered by data analytics and explore the efficiencies and collaborative working it can enable – particularly between airlines, OEMs, and ANSPs.”

OVERCOMING THE BARRIERS TO TRUE AIRLINE DIGITALIZATION

However, obstacles remain for airlines looking to embark on digital transformation programs.

Perhaps the main difficulty is proving return on investment (ROI), particularly during a period

where many airlines are more concerned with economic growth, survival and prosperity.

As Igor explains: “In the last 10-15 years, there has been significant innovation in digitalizing inflight cockpit processes. These advances are now relatively mature, and so airlines are now asking what other gains can be drawn from existing approaches. The challenge here is how to move to the next level, while still proving ROI.”

The main difficulty in proving ROI lies in the fact that digitalization is often happening in an unconnected, siloed way, which makes that return difficult to prove. Although individual enhancements, such as onboard applications for cabin and cockpit crew can undoubtedly deliver tactical advances, when used in isolation their benefits sometimes fail to justify the investment.

The effort required to knit these individual technologies together can also drain resources and add complexity. Igor explains: “For example, airlines are increasingly asking for cloud-based solutions as they realize the advantages they can bring. However, airlines that initially looked to fully manage solutions in house are quickly realizing the immense effort and resources required to maintain and scale appropriately, and are now looking to outsource. At the same time, airlines are more conscious than ever about the value of their data, and of maintaining full visibility and control.”

To achieve the next level of digitalization – and maximize the efficiencies and collaborative working this can enable – airlines require a trusted and neutral partner who can manage the process holistically by integrating a mix of technologies and connectivity solutions that deliver end-user value.

With aviation developing at an historic rate, moving to the next level of aircraft digitalization remains the key to surviving and thriving. Those that delay too long will soon get left behind.

Airlines want to advance their aircraft operations. But they face three fundamental challenges: high operational costs, poor on-time performance, and inefficiency.

Through our domain of expertise, SITA FOR AIRCRAFT, we address these challenges in our Digital Day of Operations portfolio. It provides a suite of applications and services that together enable real-time collaboration and support for operations staff, pilots and cabin crew to optimize the flight operations journey at take-off, inflight and landing.

For more information on what's driving airlines to digitalize their operations, and the benefits they derive from doing so, watch our new video with Director, Airline OCC and Crew Application Portfolio, Igor Dimnik: https://youtu.be/W_VNfyqpKOk