

AVIATION DIGITALIZATION TIPS

How is digitalization optimizing airline operations?

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Digitalization has firmly taken center stage in the aviation industry's collective consciousness.

According to SITA's latest airline investment insights, all carriers now have a digitalization or digital transformation strategy in place (58%), ongoing (39%) or in the pipeline (3%). They are also keen to invest in cloud services, data centers, wireless onboard crew services, and automatic data management – key components in digitalized airline operations.

Airlines want to turn digitalization talk into action. But for their investments to be truly meaningful, they need to select solutions that support their digital goals as part of a bigger, long-term picture.

DIGITALIZING FLIGHT NOSE-TO-TAIL

In day-to-day flight operations, strategic digital enhancements, now being delivered through a suite of intuitive airline applications and services, offer airlines both immediate and future-proof benefits. These, by supporting the roles involved at every flight stage, are, in turn, helping airlines optimize their overall operations.

In the cockpit, digitalization is increasingly transforming work processes to become natively digital. More and more pilots are accessing a

connected ecosystem of apps, services and documents that will define the future flight deck. A proliferation of targeted applications offer pilots access to rich, vital information through a single handheld device. These new digital solutions can help pilots enhance operational efficiency, situational awareness, collaboration and safety processes, as part of an airline's bespoke digitalized portfolio.

For pilots, going digital is a surefire means of minimizing workload. Being able to, for example, upload briefings or submit reports digitally with a device that connects at the gate, instantly eradicates layers of admin.

Digitalization also elevates operational performance. Take specialized apps, such as for granting situational weather awareness. By delivering graphically-optimized views of market-leading weather data, apps bringing greater awareness to the cockpit can support more flexible and responsive operations, and safer and more economical flight routes. With flight disruptions costing the airline industry some \$60 billion annually, the return on investment case is clear.

AIR/GROUND COLLABORATION

Adopting a central digital ecosystem of airline apps also enables pilots and ground-based operatives to collaborate more effectively. Giving everyone involved in flight operations the same view of airline information enables greater consistency and communication around flight performance. Having more eyes on the same data, such as through smart fuel tracking, also offers further potential to identify issues or areas for optimization.

Similarly, for cabin crews, using a digital applications suite radically streamlines administrative processes, enabling more time spent focusing on passenger service. Such new, digitalized capabilities span everything from automation (i.e. prefilling set parameters in digital forms) and integration (formatting crew data to feed seamlessly into ground IT on offload), to easy access to latest customer information (by synchronizing passenger profiles with airline CRM systems).

REAL-TIME CONNECTION

Add in-flight connectivity into the mix of course, and the benefits can multiply tenfold.

Connecting application-rich cockpit and cabin crew tablets over available flightdeck connectivity links – VHF radio frequencies, satellite communications, new generation IP links such as SwiftBroadband-Safety – can facilitate constant information sharing with the ground.

Pilots increasingly demand the same level of connectivity in the air as on the ground. And it's no surprise why. Those flying with a connected app ecosystem are best-equipped to receive real-time, consistently-formatted uplinked updates from the ground, painting the latest and most complete picture for decision-making. This benefits every aspect of flight, from real-time weather awareness, route planning and air/ground communications, to relaying aircraft health information. With the best and latest information to

hand, pilots can better manage disruptions, avoid turbulence, improve timekeeping and, ultimately, provide a safer, better passenger experience – all thanks to consistent, seamless air/ground contact and data communications.

Connecting cabin crew devices, meanwhile, enables attendants to better synchronize with ground IT and colleagues onboard. Being able to receive connection updates, or share customer problems or catering stocks information mid-flight, are all ways enhanced communication empowers attendants to elevate passenger service.

ADVANCING PRACTICES ON THE GROUND

On the ground, maturing digital applications that can speak to those onboard, remain integral in advancing aircraft operations activities, collaboration and support.

Take flight tracking. To be able to report aircraft in-flight positions every 15 minutes, in line with ICAO recommendations, airlines have rapidly adopted new software systems. Incorporating rich global data sources, and automatically generating alerts if an aircraft doesn't report its flight position, are just two ways such systems have enhanced airline dispatch operations.

DEFINING DIGITAL GOALS

As SITA's insights show, many airlines recognize a digital shift is key to reinventing aircraft operations, flight and the onboard experience, making it safer, more efficient and more enjoyable. But other carriers struggle to develop the valuable business cases they need for that all-important internal buy-in. When an airline's digital champions hit that wall, they need to ask themselves, what is my goal?

As competition and air traffic congestion intensifies, embracing digital transformation is a smart, future-proofing move, taking daily flight operations to the next level. Investing in digitalized operations – leveraged through an integrated,

connectivity-ready airline application ecosystem
– gives operators the foundations to meet their
future needs and demands.

BIG PICTURE

In order for flight operations digitalization to deliver on its promises, airlines need to be able to cut across multiple disciplines and meet best practices. For it, airlines need partners with the expertise to help them achieve digitalization now and long-term, being ever-ready to adapt. Indeed, if airline operations is to go from strength to strength in a digital world, standing still is not an option.

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

SITA FOR AIRCRAFT's Digital Day of Operations portfolio addresses these challenges. 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, in-flight and landing.