

FREQUENTIS

Digitalisation of Airport Operations

Airports are looking for efficiency and sustainability gains.

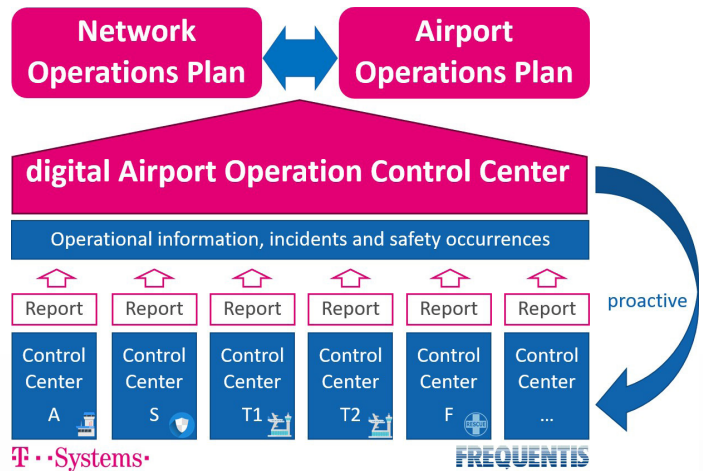
We look at how a partnership between **T-Systems** and **Frequentis** will drive the digital transformation, improving flexibility and resilience, while increasing commercial success.

Aviation's recovery from pandemic losses requires a lot more than just returning passengers for it to recoup the shortfalls. Reducing airport operator costs is not enough; airports need to look at becoming more flexible, efficient and resilient if they are to even survive.

The lack of air travel during the pandemic has also led to a knowledge loss at airports because of staff cutbacks, adding to the challenge. To fully recover, the focus must be on new processes and technology that will allow airports to improve resource allocation and streamline operations; for this, digitalisation is key. This is a continuous process for airport operators and other involved stakeholders. The ability to act in unpredictable circumstances and potential crises is mandatory. Airport operators must therefore adapt their organisation to the 'new normal', preparing for the future and new working methods.

Improving Predictability, Resilience and Decarbonisation

Introducing the Airport Operations Plan (AOP) is a prerequisite for harmonising and synchronising processes and services, with the Network Operations Plan as the link between the airspace and infrastructure on the ground.



Digitalisation is key to improving resource allocation and streamlining operations

Like any other business, airports need a high-quality service to attract customers, which include not only airline passengers but also cargo, retailers, security, ground handlers and airlines, among others. Passenger experience depends on a streamlined process between a whole network of players to keep them moving and ensure any disruptions are dealt with and resolved as promptly as possible. Improving customer experience from door to destination also requires the consideration of all phases of the journey. For this to work, information silos need to be removed and replaced with efficient, modernised processes allowing shared situational awareness across all stakeholders, so they can collaborate effectively.

Some airports have advanced digitalisation efforts in some areas reasonably well, but the challenge remains to cover the whole value chain. Frequentis and T-Systems envisage the seamless connection of air traffic control services and airport operations to reduce delays, increase productivity and ultimately improve passenger experience.

As well as efficiency gains, digitalisation drives the reduction of carbon emissions at the airport and in its vicinity. Transparent processes and a holistic view of airport operations will help to achieve the agreed climate targets.

Bridging Airside and Landside Operations

Based on their products Frequentis and T-Systems support airports with bridging the airside and landside operations to resolve disruptions faster because, in many cases, problems on air- or landside directly impact the efficient operations. To avoid disruptive repercussions, Frequentis and T-Systems integrate and align products from both of their portfolios to drive the digital transformation of the major processes at airports – including those that have, until now, remained untouched.

The digitalisation and automation of relevant workflows will support staff and their individual processes to become more efficient and transparent, while executive management is further supported with continuously evaluating and improving the entire airport operation, ensuring a smooth transition to new working methods at the airport – a big win for all stakeholders.

Working in Harmony

Frequentis and T-Systems have designed a digital Airport Operations Centre (dAPOC) providing a unique solution which increases the overall airport performance, combining airport operations, firefighting, security control, external stakeholders and, importantly, ATC. This will give air navigation service providers (ANSPs) and the network manager a better understanding and prediction of what is happening at the airport and improve flight efficiency.

Overall, customers need tailored, flexible and scalable solutions to save operational costs. This is also relevant for rethinking the staffing of airport towers, and the digitisation and virtualisation of these services to increase flexibility – also important in disruptive and volatile phases. This goal can be supported with integrated platforms from T-Systems and Frequentis, to enable hybrid cloud operations. A digital driven



Left: Edgar Ziller, Director of Strategy & Partner Management Airports at T-Systems



Right: Charly Fesl, Director of Airports at Frequentis

airport operations plan will improve the predictability and resilience of airport operations contributing to sustainability goals, while simultaneously reducing airline costs.

Edgar Ziller – Director of Strategy & Partner Management Airports at T-Systems

T-Systems has been in the business of airport management solutions for over thirty years and, today, is one of the top four global airport management solution vendors. Edgar joined the airport industry as an IT project leader in 1997 and has held management positions within T-Systems for 20 years. Edgar has gained deep expertise in airport operations and progressive IT solutions.

Charly Fesl – Director of Airports at Frequentis

Frequentis has ATM knowledge spanning 75 years and operational references for many market-leading solutions, which bring further advantages for the enhancement of airport operations. Charly joined the airport industry in 1999. Currently he is Managing Director of the Frequentis drone innovation affiliate AIRlabs Austria GmbH and Director of Airports at Frequentis.



Winner ATM Maverick award 2021 for sustainability

Digital. Sustainable. Safe.

The continuous development of the digital ATM system brings many benefits, including greener aviation. Solutions that provide more precise route planning and traffic management, and that consider real-time weather data, with optimised flight profiles, will reduce fuel consumption and CO₂ emissions.

The Frequentis Orthogon Arrival Manager (AMAN) has saved more than one million tons of CO₂ emissions globally within its 20 years of operations. The extended AMAN has the ability to unlock additional CO₂ savings and is supported by ICAO Aviation System Block Upgrades and SESAR.

The number of globally deployed AMAN is growing. Join us in supporting sustainable aviation.