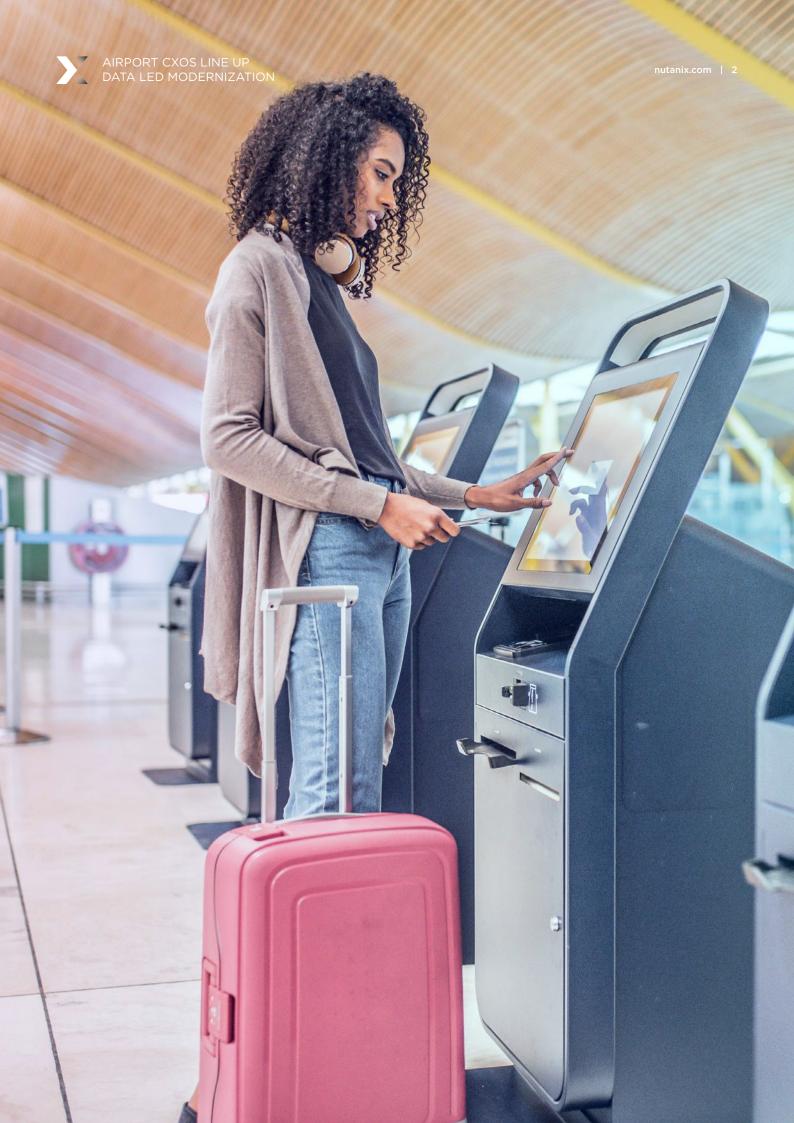# AIRPORT CXOs LINE UP DATA LED MODERNIZATION
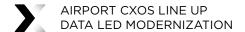
AIR TRAVEL IS BECOMING INSIGHT-DRIVEN TO DELIVER A GOOD CUSTOMER EXPERIENCE

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You have to make sure that **the data flow is secure** and customers get the right information at the right time.

In January 2020, business advisory group McKinsey reported that the air travel industry had just recorded its fifth consecutive year of profitability and growth. As a result, in a paper on the future of air travel McKinsey forecast that "airports, globally, are operating at or beyond capacity", and called for expansion. Within months of this report being published, the air travel industry would be effectively grounded as the Covid-19 pandemic closed international borders. Today the air travel sector is turning to technology to navigate a new route beyond the pandemic. Airports, in particular, are rapidly adopting digital methods to optimize operations, improve the customer experience and lower the impact air travel has on the environment.

"We have become an insight-driven organization,' says Brian Roche. Roche was Director of Information Technology at George Best, Belfast City Airport, from 2019 to June 2022. Airports are ecosystems; the operator is working closely with a host of other organizations such as the airlines, retailers, fuel providers, services business, and of course, the passengers. "We have 40 business partners across aviation, car rental, food and beverages, and air traffic control, and we have to have a service that is fit for purpose and capable of offering interoperability," Roche says of the data centricity of every organization on an airport. "You have to make sure that the data flow is secure and customers get the right information at the right time.

"We need to use the data in the right way. We have hundreds of different systems creating lots of logs, and it is hard to make them meaningful without context. Correlation isn't always causation, and that is the job we have to do," he says.

On the other side of the Irish Sea, Andy Isenman, Head of Technology: Cloud and Data at Heathrow Airport, has also developed a data strategy to turn the UK's busiest airport into a data-driven organization. "Forecasting has become a completely different beast, being done day-on-day, rather than month-on-month or year-on-year. We have re-platformed the retail data to provide insight into how the stores in the airport are used. In the cargo operations of Heathrow, we are now able to calculate the value of the cargo traveling through the airport," he says. Before the COVID-19 pandemic, Heathrow Airport
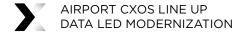
was the world's second busiest airport by international passenger numbers and the busiest airport in Europe.

To ensure the right information is received and shared, George Best, Belfast City Airport, digitized its forms and is deploying Internet of Things (IoT) sensors. IoT will improve business processes but also the customer experience. "The focus has to be on enabling the customer journey. Travelers get most frustrated when there is a lack of information and personalization is becoming expected. There is a whole lot of information that makes personalization happen," Roche says.

Roche adds that the airport has already seen the benefits of this. When Stobart Air, a franchise operator of Aer Lingus Regional went into liquidation in June 2021, George Best Belfast City Airport was able to contact travelers on the main Aer Lingus carrier and reassure them that their flights were still scheduled to fly. "Over 50% of our business is the business traveler; they want a stress-free airport experience," Roche says.

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The aim of the data focus at Heathrow, Isenman says, is to ensure the London airport becomes a data-driven organization and uses data to reach its business objectives and regulatory demands.

INFRASTRUCTURE FOR INFRASTRUCTURE

The pandemic lockdowns led to one of the most impactful disruptions that the air travel sector has ever witnessed. "We grasped it as an opportunity to modernize and rebuild the operating support model, the team structure, and we changed our IT Service Management (ITSM)," Roche says of how Belfast's airport coped with Covid-19.

Roche moved George Best Belfast City Airport onto a Nutanix hyperconverged infrastructure estate soon after joining the organization. "Hyperconverged is fully integrated, so there's not a legacy 3-Tier approach. When you need a server, switch, or data storage, it is seamlessly managed by people of multiple levels of capability.

"The ability to deploy technologies quickly is key; if we were to need a new server, it is six minutes to have a machine running with the right applications. It is very much about putting the right workload in the right place.

A lot of our workloads are quite static and don't have to change profile, so we decided an internal private cloud gave us the cloud-like flexibility and interoperability, but the workloads are on-premises," he says. Should the airport need additional capacity, it can quickly bring in cloud resources.

"For me, I need something that is rock solid, no-touch, easy to manage and does what it says on the tin. It is like building a house; you need good foundations; otherwise, there is no point building a beautiful house if it is going to sink into a swamp, like the Monty Python sketch."

In 2017 Heathrow Airport formed a strategic relationship with Microsoft to modernize the airport's technology infrastructure. Microsoft Azure, Power BI, Office365, and Windows 10 were adopted as the core technologies for the airport, including the delivery of a data platform.
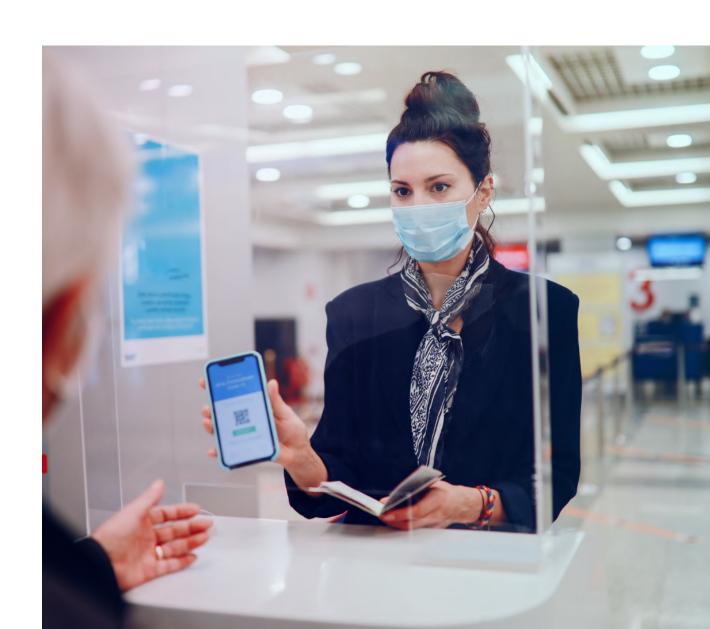
CLIMBING HIGH

Roche explains that his appointment in 2019 was part of the Belfast airport moving technology up the business agenda. The rise of cybersecurity threats to critical infrastructure like airports adds to the need for a technology leader on the board. "I am

ensuring the business is protected from the threats that are out there. When we have board meetings, the first item on the agenda is always safety and security, and we see cybersecurity as a really important part of that," he says.

Both airports have now charted a journey forwards out of the pandemic that is technology and data-oriented. Heathrow has the ability to analyze all areas of its operations down to details such as how colleagues commute to and from the airport, Isenman says, as well as how these

behaviors might be impacted by more flexible working policies going forwards.

Roche says technology plays a crucial role in supporting airports with new business models: "It gives more room to innovate and make parts of the business more efficient. This is a period of recovery for the airline industry, and we have seen a lot of fallout at some airports, and it is a challenge.

"We have spent the last two years building the right foundations to get the IT in place so that we can evolve as an organization."

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