

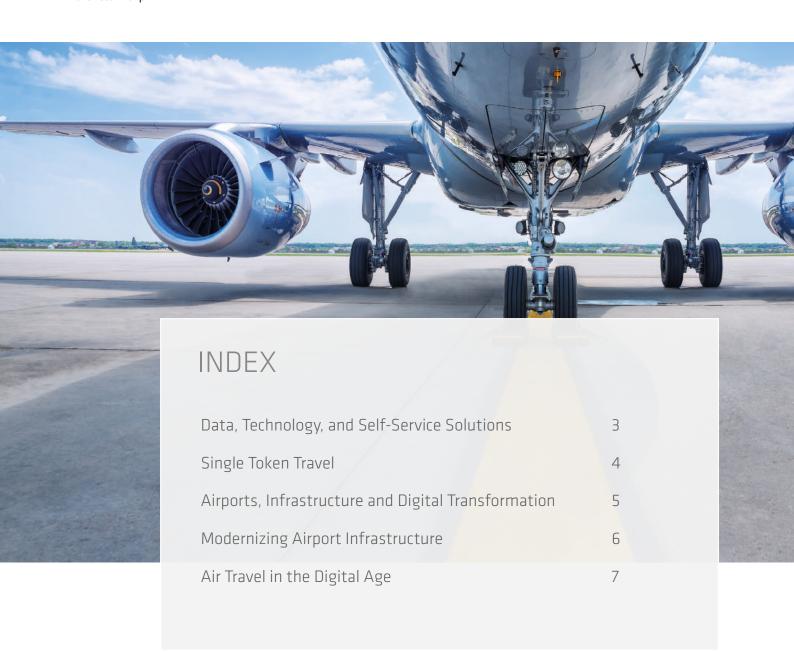
Digital transformation has fundamentally changed passenger expectations about air travel. An overwhelming majority of travelers today want access to digital services to improve their journey. Airports are meeting passenger demands with varying degrees of success. For most, the biggest barrier is their infrastructure. This paper examines what changes airports can make to upgrade their cable and IT infrastructure to enable delivery of the self-service, on-demand, digital travel experience modern passengers expect.

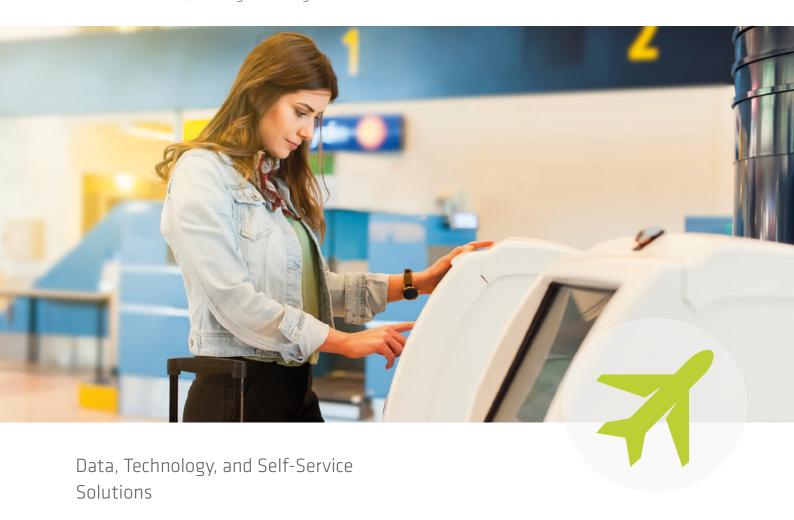
## Change is on the Horizon

Generation Z, aka the "iGeneration", is coming of age. This new generation of travelers is not only changing airport operations and retail strategies – they are also heavily influencing the technology and tools needed to provide a positive passenger experience. To keep pace with demands, providing digital services is fundamental. As a generation born into an IoT world, they are acclimated to a higher standard of technology, especially when they travel. While airports have incorporated elements of digital transformation into their campus and operations, there is still a long way to go to fully transform the passenger experience.

To become the hub of choice, airports need to fully exploit digital technologies and address the complete digital value chain – from the very first online interaction when a traveler begins searching for a ticket all the way through to the conclusion of the return trip.

Every step along the way offers many opportunities to make a good impression with superior service. Airlines and airports that can properly serve today's digital passenger are primed to maximize passenger engagement through every step of the journey and, consequently, increase revenue. While some of the leading airports already use digital technology to power various aspects of their operation to provide better passenger experience, the complete digital passenger experience is still an elusive goal for most.





Every flyer is a digital passenger who both provides and consumes vast amounts of data. For airports to effectively use this data, it's not enough to simply collate information in silos. Information must flow through the campus and terminal to provide real commercial intelligence. This requires collaborative relationships between airport operators, airlines, retailers, and service providers to facilitate a new, data-powered operation.

It also requires airports to begin collecting and sharing data before passengers even arrive at the airport. The earlier that airports can begin interacting with passengers, the more opportunities there are to meet their needs and build a positive relationship. This requires personalization, which begins with identifying travelers and involves matching data to them as they interact with mobile apps, kiosks and fixed service outlets. Doing so enables personalized offers and information to be presented to travelers as they move through the airport. Identification can begin as early as when a traveler checks their car at the airport car park.

From there, the customer's profile can be filled in as they use such self-service solutions as mobile check-in, self-boarding, and automated border control. The more the airport knows about travelers, the more tailored digital advertising can be, and the more targeted information mobile apps can deliver to inform passengers of the airport services that are open and available to them.

There is no shortage of technology that can transform the overall airport experience for passengers while providing a significant competitive advantage. For example, with Bluetooth beacons installed throughout a terminal, retailers and food and beverage vendors can send personalized offers to passengers whose preferences are already known. Additionally, automated arrival information can be used to improve carousel efficiency, reduce waiting times and avoid unnecessary belt maintenance. By enabling passengers to track the location of digitally tagged bags from their mobile devices, airports can differentiate themselves amongst competitors, prevent baggage claim areas from becoming too overcrowded and, perhaps most valuable to travelers, provide passengers with peace of mind.

Most importantly, passengers want to stay informed throughout every step of their journey. According to the 2017 IATA Global Passenger Survey, 85% of passengers want to instantly check the status of their flight, 50% want to digitally track their bag and more than half want to receive updates regarding wait times at various points in their travel. Eighty-five percent of travelers are happy to provide personal data to airlines in order to speed these processes up at the airport.



travel documents and a secure single token is created. Nearly 64% of passengers prefer biometric identification as their traveling token (2017 IATA Global Passenger Survey).

As a result, at every additional step in the journey – whether it's during self bag drop, at border control or during aircraft boarding – passengers simply complete a facial scan without having to provide their passport or boarding card. A mobile system will also capture biometric details from e-passports using a handheld smart device, allowing checks to be conducted anywhere in the airport by roving immigration agents.



## Single Token Travel

Digital passengers are looking for quality services at airports that offer convenient, informed and integrated travel experiences. Currently, passengers have multiple touch points when booking travel, exchanging currency, securing local transportation, finding flight information, accessing airport facilities, etc. In a true digital airport environment, the passenger will simply have a one-stop-shop service they can access from their own device.

By capturing passengers' biometrics and travel information into a single digital record, travelers will soon be able to use this token as identification at each step along their journey. This technology allows a passenger's biometric details to be captured through a facial scan at the first touch point in their journey. The biometric record is then checked against the passenger's

Single token travel will improve security oversight, elevate the passenger's travel experience, speed up passenger processing, and reduce the resources needed to manage the travel journey.

Greater connectivity will be a win for both the airport and the passenger; however, the ability to use and integrate this new technology may be a challenge for existing airport infrastructure.

## Passengers Want to Use Digital Services at the Airport



would use a digital passport on their smartphone

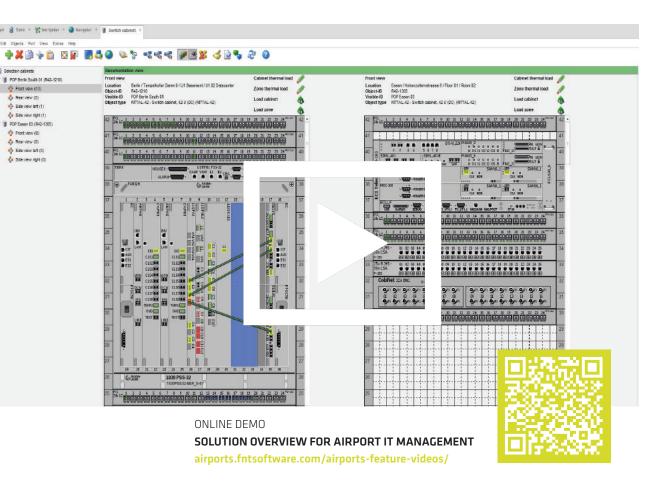


will share personal information to speed things up at the airport



would like to receive flight notifications on their mobile device

According to the 2017 IATA Global Passenger Survey



# Airports, Infrastructure and Digital Transformation

Servicing the needs of today's digital passenger involves more than just the deployment of self-service apps that can be accessed via mobile devices and kiosks throughout the airport. These are the tangible examples of the digital transformation that is reshaping the passenger journey. They are made possible by underlying cable and IT infrastructure, which is not obvious, but is equally important to the overall passenger experience. Behind the scenes, airport personnel use the same infrastructure that makes the digital value chain possible to keep the airport running efficiently. This indirectly enhances the travel experience and is important because the consequences of inadequate infrastructure - flight delays, longer airline routes and inefficient schedules - are not only costly to the airport, but also damaging to the passenger experience. There is a direct correlation between the airport's use of infrastructure and customer satisfaction.

Today's terminal space is becoming extremely flexible and requires a dynamic infrastructure capable of scaling to meet changing needs. Passengers are not the only ones for whom mobility is changing the airport experience. Mobility is also creating dynamic workspaces for personnel, from security staff, shop attendants and information centers to maintenance, check- in and air crew, to name a few.

The modern airport has very few passenger touch points that are fixed to one physical space anymore. This allows huge operational benefits to the running of the airport. It also requires a high-performing infrastructure that is capable of handling a vast amount of transactions using real-time or near real-time data with low to no latency to support the demands placed on it.

Such a high-performing infrastructure delivers complete transparency of the airport ICT infrastructure. Planners can use this transparency to ensure complete redundancy in their networks, to re-route services when essential maintenance and building work must be performed, and to respond quickly to unforeseen outages and minimize disruption. To maintain customer satisfaction and profits, airports must avoid interrupting the passenger journey, whether the interruption be caused by planned or unplanned events. Planning around such occurrences can only be done effectively if the entire infrastructure is documented and the operational teams have access to this resource inventory, wherever and whenever they need it.

## Modernizing Airport Infrastructure

Inadequate infrastructure can negatively impact the passenger experience in the form of flight delays, longer routes, and unscheduled maintenance. Digital transformation is needed to address these challenges; however, due to the complexities of delivering digitalized services, conventional approaches to service provisioning won't work.

To meet the demands of today's digital passenger, airports must eliminate the silos across the airport organization, specifically as they relate to IT, properly manage an increasingly complex hybrid IT environment, and keep pace with fast changing customer demands and the internal requirements for delivery.

Airlines and airports need a robust IT architecture that is extremely flexible, scalable, and able to handle thousands of sophisticated transactions using real-time or near real-time data. The best approach for introducing state-of-the-art IT services into the airport infrastructure begins with identifying the right solution for airports' unique needs.

Airport IT and network operations managers need their infrastructure to manage a vast array of cable networks and IT services. They need a system that provides them full control of roll-out projects, operational processes and all related information. Any new solution must deliver complete visibility into every facet of the airport infrastructure to support data-driven decisions to prevent service disruption, improve work processes based on precise work plans and shorten outage times due to faster root-cause-analysis.

## Key Capabilities of an Airport Infrastructure Management Solution



#### **Cable Infrastructure**

Data cables and communications services are vital to the modern business world. To manage them effectively, total transparency and graphical documentation of nodes, trays, sections and individual fiber-optic assignments, in conjunction with service layers, is necessary. FNT Command enables network managers to document, plan and manage the entire cable and network infrastructure with an end-to-end view both in planning and actual mode.



#### **ICT Services**

A better organized service portfolio equals better IT service organization. FNT ServicePlanet can support modeling and provisioning of service portfolios to increase the efficiency of IT activities. By providing the foundation for defining, managing, and monitoring business services and airport assets over their entire service lifecycle, network managers will be able to match service management perspectives with the IT infrastructure view.



#### IT Infrastructure

Having complete insight into IT infrastructure enables airports to provision services quickly – from assets, to configuration items, to licenses, contracts and documentation. FNT Command can optimize every interaction between networks, servers, workstations and software management from both a technological and business viewpoint. Additionally, integrated license management and IT automation support can reduce IT costs and improve the quality of IT services. Furthermore, FNT's complete DCIM solution provides airport businesses with full control of data center operations regarding space, power and cooling. The ability to assess and monitor a data center in realtime improves decision making and daily processes, all while reducing unplanned downtimes.

## Air Travel in the Digital Age

Like other industries, the aviation industry must continuously adapt to market changes and new technology. For airports, the focus is on the passenger's journey. Airports strive to make traveling a seamless and personalized experience and technology plays a pivotal role in their ability to do so. From the passenger's perspective, this is not only desired – it is expected.



Passengers expect technology to give them more personal control over their travel experience.

They want airport processes to be automated, they want a single identity token for all travel processes using biometric identification, and they want real-time information sent directly to their mobile devices. The ability to provide Generation Z, and future digital passengers, with these and other new digital services presents an opportunity to transform your airport into the hub of choice.

Transformation through digital processes is an opportunity for all stakeholders in the value chain. It starts with gaining a clear and precise overview of your airport's valuable IT infrastructure and cable network assets. It also requires implementing the right technology, along with a comprehensive management solution, to maximize the value derived from these assets. Such a comprehensive approach to airport infrastructure will enable airports to conquer industry challenges, reduce operational costs and create a positive flight experience for digital passengers.

To learn about FNT's solutions for airports, visit our website at http://airports.fntsoftware.com/

### About FNT

FNT is a leading provider of integrated software solutions for IT management, data center infrastructure management and telecommunication infrastructure management worldwide.

FNT Command is our innovative software solution that is used worldwide as an OSS / IT management platform for businesses that span numerous industries. It's a modern, web-based standard software solution with a central data repository that enables customers to better manage their IT, cable network and telecommunications infrastructure. Its CI library contains more than 60,000 pre-configured, fully described assets based on technical details provided by the manufacturers.

FNT Command provides complete visibility into all IT and telecommunications structures for managing IT assets, cabling and infrastructure, data centers and telecommunications resources, so that airports can provide high-value IT and telecommunications services to travelers, airlines and vendors.



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