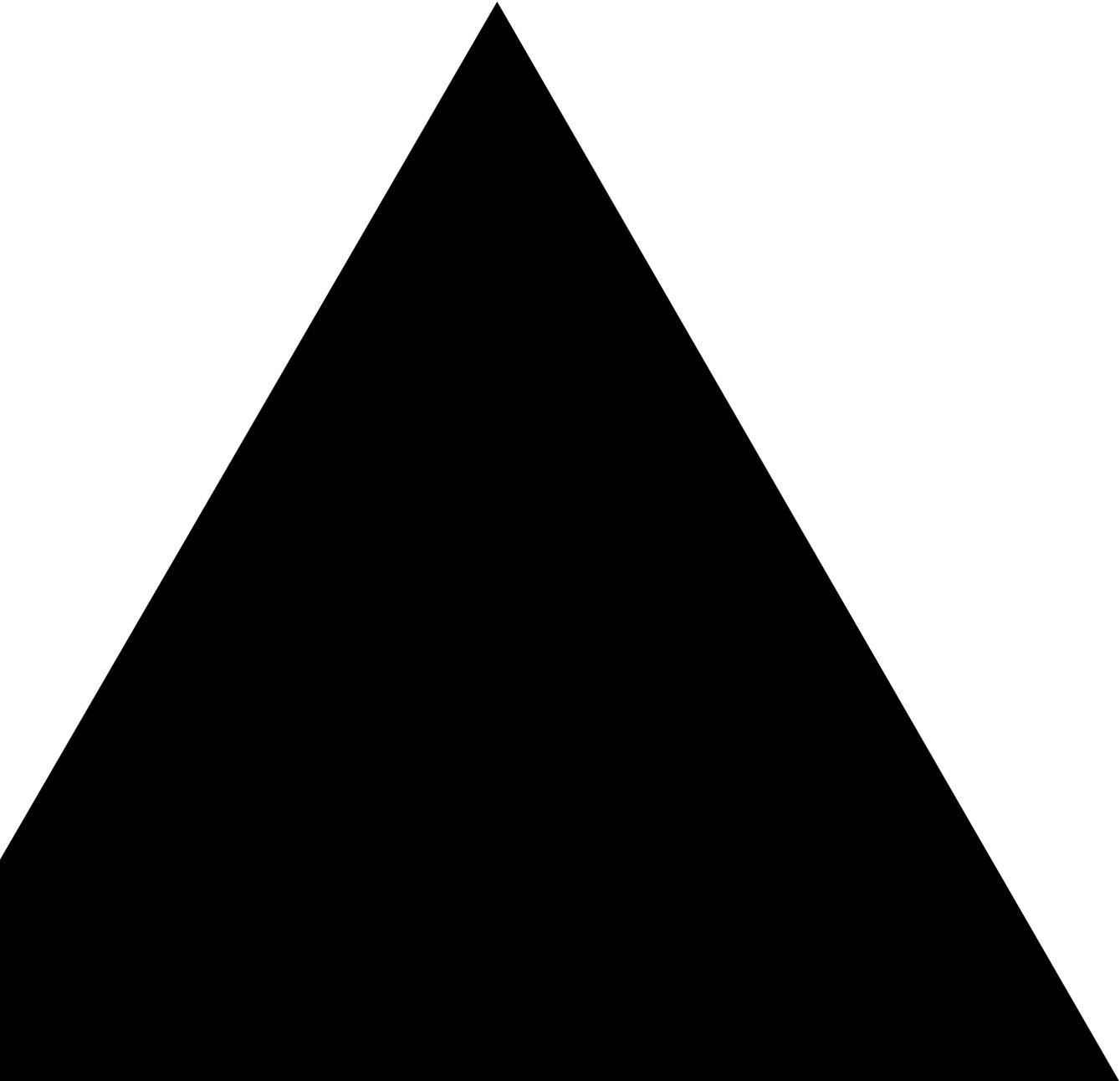# Riding the disruptive wave of digital transformation

New solutions will boost airline and airport efficiency

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As industry trends change and fresh thinking threatens to alter the status quo, airlines need to rethink their digital capabilities. To stay competitive, the industry needs to satisfy travelers and that is driving a series of solutions that will boost efficiency while improving the passenger experience.

Cause and effect

The power of cause and effect is driving constant waves of change through the airline industry. These changes began as a sociological ripple when modern life brought more business trips and an appetite for frequent and far flung holidays. Momentum increased with the advent of new carriers and created an industry that the International Air Transport Association (IATA) forecasts will generate revenue of USD$709 billion in 2016.

As passengers clocked up more air miles they became more discerning about good service and their numbers grew. With 3.8 billion people expected to fly in 2016 and an IATA estimate that 65 billion will take to the skies before 2030, their demands shape new infrastructures.

Airlines and airports perceived the need to streamline the whole travel experience and start to align technology with their business and operational processes. To compete effectively they started to review the way they use operational data for every event, touch point and check point from curbside to gate, ramp, apron and in flight.

This meant replacing traditional paper-based transactions and physical contact with self-service and automation, and moving from fixed installations to mobile. It also prompted a repositioning of their approach to airport retail and entertainment services and placed increasing importance on customer loyalty schemes.

Technology has been the key to all these developments and, as demands become ever more sophisticated, the latest change to hit the industry is the need for digital transformation.

Rewriting the rules to stay competitive

So, what does digital transformation actually mean? It's a series of real commercial challenges and solutions that the industry ignores at its peril.

Digital transformation is a concept that is as relevant to the airline industry as it is to automotive, banking, healthcare and virtually every other commercial sector. The strategy identifies five digital trends facing the travel and transportation industry:

- The need to grow ancillary revenues through packaging and selling ancillary services; increasing revenues and margins

- The creation of service differentiation through personalized customer services, new operational capabilities and customer analytics with location-based services

- Increased airline capacity with optimized crew management, improved maintenance, repair and overhaul and enhanced aircraft scheduling

- Delivery of a seamless customer travel experiences and mobility for personalized services

- Optimized cost of operations through digitization and process automation, enhanced maintenance activities, improved flight operations and an optimized supply chain

DXC believes that the digital revolution will reshape entire industries across the globe. Consumers are in charge and will define the next moves and asymmetric competition from unexpected sectors will be the norm.

The warning in DXC's digital strategy is 'transform now or risk becoming digitally obsolete' and three pillars underpin the concept:

- First is business innovation which embodies the creation of new business models, the disruption of entire industries and marketplaces and the defense of your own business from disruption

- Second is improving the digital customer experience including defining the customer journey map, supercharging the customer experience and increasing loyalty to maximize your share of customer spend

- Third is digital business process transformation, with the introduction of digital strategies into operational processes and IT systems, the optimization of business performance and increased organizational effectiveness

Transformation versus tradition

The airline industry is the last major market where, in order to accomplish a sale, control of product and inventory are handed off to third parties who direct that sale through their distribution networks without any airline interaction.

This is a more than USD$700 billion industry where the airlines are projected to make a net margin of 5.1% in 2016, significantly less than the third parties engaged in airline seat distribution. It's a situation that the major distribution players may not want to change but, by sticking with tradition, airlines are trading off their ability to transform.

Airlines can leverage APS to sell seats and ancillary products, manage the travel lifecycle, personalize the retail and customer experience, handle airport processes and deliver revenue-based customer service

Now DXC has entered the market with its Airline Passenger Solutions (APS) and a determination to prioritize the airline agenda. APS is a suite of mission-critical applications that support the full spectrum of customer-related activities.

Airlines can leverage APS to sell seats and ancillary products, manage the travel lifecycle, personalize the retail and customer experience, handle airport processes and deliver revenue-based customer service.

DXC has no conflict of interest and no platforms that would cause it to behave with a different agenda than the airlines. Its scenario is one where the airlines retain 100% control of their strategy and this different type of offering is bringing disruption to the status quo.

Two recent deals have underlined the growing popularity of this DXC approach:

- A major player operating more than 4,500 flights a day has replaced its in-house model with three key solutions from the DXC product set

- At the other end of the scale, a small flag carrier making over 300 flights a day has reversed a previous decision and invested in DXC's full Airline Passenger Solutions suite

Personalize the passenger experience

All APS modules are fully integrated with the DXC Passenger Service Solution (PSS) which is a next-generation airline customer service solution built on the company's industry-leading service-oriented architecture for transportation.

PSS automates all major passenger service functions: pricing, shopping, reservations, ticketing, check-in, seat assignment and ancillary service sales. PSS has been designed from the ground up to help airlines remain competitive by improving innovation, agility, optimization and risk management.

The solution features a reservation sales and airport agent graphical user interface (GUI) which enables airport agents to manage simple basic customer handling and servicing. It simplifies reservations and airport processes and also supports the sale of additional products and services. It also deals with fares, delivering accurately calculated pricing based on current published and private fares, rules, taxes and currencies. This highly configurable solution enables airlines to control complex fare and rule data.

PSS also supports fast and accurate reissue and refunding of airline tickets, handles miscellaneous electronic documents and uses airline-set rules to provide accurate baggage charge information during reservations. A SMART traveler function links the whole travel experience and the DXC Internet Booking Engine (IBE) links customer-specific travel needs to airline-specific offers. This includes initial searches, available flights, pricing, bundle options, seat selection, ancillary offers, passenger information collection, payment, confirmation and receipts.

Collecting and managing data during every interaction, PSS gives greater insight into customers. It helps establish the true business value of each relationship. This reduces the risks of migration, improves revenue and brings competitive ideas to market fast.

Streamline the journey experience

Improving the satisfaction of those customers both on the ground and in the air is a must for airline and airport operators. To support this, they are now recognizing the importance of creating a connected supply chain by working together as one cohesive business service unit.

In line with this concept, DXC Connected Traveler meets the need to provide personalized services, identify trends throughout the customer's journey and enable digital interaction with systems. An integrated, real-time solution, Connected Traveler is designed to enhance the customer experience while improving operational performance and productivity and delivering the opportunity to increase revenue at various touch points throughout the airport journey. It can be delivered either through a Software-as-a-Service (SaaS) arrangement or an on-site managed services delivery model.

The Connected Traveler suite offers a combination of mobility, beacon technology, data management and analytics which support communication between the customer, airline and airport. Each event, touch point or check point becomes an opportunity to personalize services, enable self-help, automate amenities and gain knowledge of real-time trends.

In addition to improving operational coordination, the flow of information between airlines and airports also streamlines the customer experience.

To achieve this, real-time localization and alerts notify customers of gate changes or flight delays, guiding them through travel and shopping paths and providing a new channel for retailing and entertainment.

The analysis of customer foot patterns and dwell times provides information to support improved customer traffic flows and interaction with customer and other communication devices helps improve check-in and security processes. Finally, staff with mobile connectivity can provide concierge services to handle on-the-spot disruptions, customer service requests and operational support.

Research by DXC shows that using Connected Traveler can bring an uplift in airport revenue through increased land and airside sales and a significant improvement in ramp and apron productivity.

66%

of business travelers are open to switching to another airline's FFP

Take control of chaos

Unplanned flight disruptions can increase labor costs and impact revenue through refunds, passenger compensation and the need to book passengers on competitors' flights.

Effectively managing travel disruptions in a timely manner is critical to sustaining profitability and better customer service. The answer is provided by DXC Irregular Operations (IROPS).

Using the business-rules-driven automation of IROPS helps airlines to manage disruptions with speed, quality and efficiency, re-accommodating passengers in seconds instead of hours, while protecting revenue and brand loyalty.

Rather than solving one operational problem at a time, IROPS creates a complete solution in which all components are factored and integrated. It quickly presents various solutions and enables real-time adjustments to be made to the recovery strategy before rebooking a single passenger.

This fully automated system evaluates the problem then assembles a list of all affected passengers. Business rules are applied to determine the priority for rebooking and, during this process, IROPS considers the entire flight network and relates it to the customer's total journey. It displays a complete solution for all affected passengers, showing all available options ranked according to airline criteria and then operators can automatically or manually deliver the re-accommodation solution to passengers.

The system can be configured and prioritized in line with individual company rules and standards. Its web-enabled architecture means it easily integrates with other business applications and the end results are that it reduces passenger compensation and refunds and protects the brand.

Next generation loyalty program

When frequent flyer programs (FFPs) were originally launched they were targeted at the Baby Boomer market of people born just after the Second World War when there was a marked increase in birth rate.

Now, the biggest single group of users is Generation Y or the Millennials. Often the children of Baby Boomers, they were born in the 1980s and 1990s and are much more familiar with digital and electronic technology.

They have a completely different kind of communication and requirements. Rather than saving air miles for a year, they want instant gratification.

Although FFPs are popular, they are not guaranteed to bring customer loyalty. Research has shown that 66% of business travelers are open to switching to another airline's FFP.

DXC detects and quarantines nearly one million viruses a year and helps secure in excess of one million applications and two and a half billion lines of code

DXC is meeting that need with DXC Loyalty, brought to market through a collaboration with Loyalty Partner Solutions (LPS). Loyalty Partner Solutions GmbH was founded in 2008 as a spin out from Loyalty Partner GmbH and is a subsidiary of American Express. DXC is the transformation partner of choice for LPS, because of its strong expertise in delivering solutions to the travel and transportation industry.

Through professional consulting services, tailor-made IT solutions and intelligent process management, the DXC and LPS collaboration helps clients to deliver professional and unique customer loyalty experiences.

LPS loyalty software is no longer mainframe based, as are a lot of older FFP systems. It's a modern modular solution that is highly customizable. Deployed as SaaS from DXC worldwide data centers, the solution can accommodate unlimited growth and allows airlines to store their data in any location they wish for an unlimited time.

It enables airlines to work with partner companies and easily integrates with other DXC solutions, enabling airlines to understand and use their data in more ways than ever before.

Emerging technology such as beacons gives access to members wherever they are and this means they can be sent the perfect offer just at the right moment.

If, for example, a passenger is located and found to have an hour before his or her flight boards, they can be sent a mobile message offering lounge access at a particular price. Others can be sent offers that relate specifically to their local airport or airline.

Why DXC?

To help its customers achieve their digital transformation, DXC Travel and Transportation offers advisory and technology services and a range of pragmatic technology solutions.

It's well equipped to do so because it has supported the airline industry for more than 40 years and employs more than 8,000 travel and transportation experts. DXC's solutions are found in more than 500 airports where they support over 800 million passenger bookings annually and its flight operations SaaS platform handles more than two million aircraft movements a year.

The company's proven track record includes completing more than 50 system integration projects and it manages 400,000 mobile devices for its clients with more than 3,000 security and privacy professionals worldwide and 600 security patents.

DXC manages and monitors more than 2,500 firewalls and 3,000 intrusion detection systems for threats and vulnerabilities. It also detects and quarantines nearly one million viruses a year and helps secure in excess of one million applications and two and a half billion lines of code.

Advanced digital transformation initiatives will more than double by 2020, from today's 22% to almost 50%

Learn more at www.dxc.com/ travel_and_transportation

Disruption rewrites the rules

The digital revolution is rewriting the rules of business. Today's businesses are more data-driven than ever before and innovations in digital technology are increasingly changing how companies stay competitive in a global, connected economy.

In its IDC FutureScape: Worldwide IT Industry 2016 Predictions1, leading research consultancy IDC expects that the percentage of companies embracing advanced digital transformation initiatives will more than double by 2020, from today's 22% to almost 50%.

Digital transformation is at the heart of these shifting dynamics and promises the air transportation business, and industry in general, a host of new technologies to redefine traditional ways of doing business with partners, suppliers and customers.

Driven by staggering amounts of data and enabled by rapidly evolving technology, digital transformation is disrupting business models, products and experiences and has already radically changed the way people consume content, communicate, and choose products and services.

Building on these trends, companies everywhere are making digital transformation the lynchpin of their growth strategy and it will provide means the by which airlines and airports can ride the continuing waves of change well into the future.

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