Simplifying the Business

Leading transformation for customer-centric air travel
Foreword

The Simplifying the Business (StB) program celebrates its 10th anniversary this year. Throughout the years, StB has successfully delivered projects that have changed the way the aviation industry does business. Still, it is not enough. To mark its 10 years of existence, IATA has revitalized the StB program with a renewed focus on innovation and transformation.

Today, StB is articulated around three pillars: the program, the Think Tank and the World Passenger Symposium (WPS). The StB program ensures that value is created through the delivery of new standards. The StB Think Tank keeps the momentum by bringing new transformational ideas to the table. WPS is the annual forum where industry stakeholders review the progress of the program and discuss the ideas of the White Paper.

The benefits of the StB program continue to focus on passengers and airlines, but extend to the entire air travel value chain, including travel agents, airports, ground handlers, system providers and governments. IATA’s role is to bring all the key stakeholders to the table and to collaboratively work towards shared goals that benefit passengers.

In 2014, StB is moving beyond the digitization of processes, like e-ticketing and Electronic Miscellaneous Document (EMD) into designing new processes supporting our business objectives, like New Distribution Capability (NDC) and Customer Order Transformation (COT).

With this in mind, the theme of this year’s StB White Paper is:

“Leading transformation for customer-centric air travel”

Together, we develop new standards that can change the way the aviation industry does business and facilitate an improved passenger experience.

This paper reflects the work of the StB Think Tank since the beginning of the year. The StB Think Tank includes a unique group of innovative thought leaders who have a passion for transformational change in the industry. From the ideas created in the Think Tank, IATA will drive through industry change projects to realize those ideas that have real potential.

The first section of this paper outlines the renewed StB program and goals; the second section presents the StB Think Tank work completed in 2014 and the last section describes the concepts selected to transform the industry cost base and improve the passenger experience.

Sincerely yours,

Eric Léopold
Director Transformation
IATA
Simplifying the Business

The Program

Simplifying the Business (StB) is a program that includes multiple IATA projects that cover different areas of aviation, with a specific focus on the passenger. The StB program is celebrating its 10-year anniversary in 2014. Its original purpose was to improve the customer experience and reduce industry costs. There have been many successful projects and initiatives since its inception, including e-ticket and bar-coded boarding pass.

The StB benefits are intended for all involved stakeholders including airlines, airports, agents, ground handlers and system providers. After 10 years, the program has evolved, but continues to develop and manage projects with the same purpose and benefits. The shift of focus now is on developing transformational projects.

StB Unique Methodology

Project criteria

In order for a project to be under the StB umbrella, it must meet certain criteria including: generate industry savings, deliver transformational industry change and bring benefits to airlines and customers as well as other stakeholders. In addition, each project must have clear objectives/targets and tangible deliverable(s)/end goal(s) to deliver consistency and success.

Project phases

Using rapid program cycles, the projects within the three goals are listed under four different phases: ideation, conceptualization, exploration, development and implementation.

- Conceptualization: illustrate and sketch the concept. Identify KPIs and reasons for the concept to be explored.
- Exploration: Assess feasibility and develop an industry business case based on the identified KPIs.
- Development: Develop the “product” (e.g., standard, recommended practice, implementation roadmap, etc.)
- Implementation: implement the project, including industry mobilization and market adoption – according to the target roadmap.

Industry mobilization

Another unique attribute is how StB mobilizes the industry to deliver the target when projects are in implementation mode. There are designated airline champions that own the process within their own airline. The mobilization effort also relies on strong support from the IATA’s Board of Governors (BoG) and Strategy and Policy Committee (SPC) – a subset of the BoG. In addition, there are workshops, and campaigns that are regularly delivered to the industry as well as communications including a bi-monthly newsletter and webpages.

StB Steering Group

The StB program is governed by the StB Steering Group (SG). The StB SG includes 15 airline members directly appointed by their CEO who advise IATA management on the StB program strategy and execution. The group provides IATA with guidance and ensures the StB projects are relevant and meet the needs of IATA members. Each member is responsible to brief their CEO on the activities of StB. Finally, the StB activities are reported twice a year to the IATA BoG and SPC, who review and guide the StB program.

StB Think Tank

The Think Tank was created in 2011 and consists of a rotating membership of several StB SG members and other partners from specific industries – depending on the topics discussed. The Think Tank focuses on ideation and new initiatives that can potentially be pursued into a StB project. Since 2011, the StB Think Tank publishes an annual White Paper with the intent to stimulate conversation and share their innovative ideas that will lead to industry transformation.

IATA World Passenger Symposium (WPS)

The WPS is an event that was created four years ago based on a need to gather stakeholders from across the industry to focus on the passenger. The WPS is important for the StB program, since it is an opportunity to highlight and discuss the StB projects as well as the work that has been done by the Think Tank – more specifically, the White Paper. WPS is the forum where IATA provides the industry agenda and strategy for the years to come on everything relating to passenger. It’s also the place where standards are voted through the various conferences taking place simultaneously.
In 2011, the StB Think Tank was created and published the first White Paper that included five goals and a vision for each goal. In 2014, the StB Steering Group agreed to refine the five goals into three objectives. Airline Products and Real Time Interaction remained while Hassle Free and Seamless were combined. The objectives ensure that all projects are collectively adding value to deliver the vision.

Five goals established in 2011:

- **Goal 1**  
  Airline Products
- **Goal 2**  
  Passenger Data
- **Goal 3**  
  Real Time Interaction
- **Goal 4**  
  Hassle Free
- **Goal 5**  
  Seamless Journey

Three refined objectives introduced in 2014:

- **Objective 1**  
  **Airline Products**
  To empower airline retailing and merchandising.
  The airline products projects include IATA flagship transformation program New Distribution Capability as well as the e-services project planned to be closed at the end of the year. Identified as an idea in 2013, the Customer Order Transformation initiative will be elaborated on further in this document.
  For airline products, we are focused on challenging existing legacy processes and introducing new innovative ideas and a fresh look at how to make things more efficient and cost-effective for all.

- **Objective 2**  
  **Real Time Interaction**
  To provide customers with trusted, accurate and real-time information from all operators throughout their journey.
  One of the projects under this goal, the Customer Contact Information, has started to address this goal, but the new Travel Communication idea raises the bar and will address the core objective of this goal: real time interaction. Also, the Universal Customer Data Exchange idea identified in 2013 has been further developed and will be part of the Travel Communication idea. Both are elaborated on later in this document.

- **Objective 3**  
  **Seamless & Hassle Free**
  Reduce industry complexity by eliminating unnecessary processes and related wait times throughout the passenger journey.
  Currently, there are several projects under this goal that are addressing specific processes throughout the passenger journey like Smart Security, Fast Travel, Security Access and Egress and Automated Border Control. However, with an aim to move towards a seamless door-to-door journey, the StB is proposing the future end-to-end experience that will cover the entire journey, breaking silos between the various stakeholders. This will be elaborated on later in this document.
StB Project Updates

In this section, IATA will provide an update on the existing (in development or implementation phases) projects contained in the three main objectives. Each project includes their own targets, which collectively support the main objective.

**Objective 1: Airline Products**

**New Distribution Capability (NDC)**

NDC is a travel industry-supported program launched by IATA for the development and market adoption of a new, XML-based data transmission standard (NDC Standard). The NDC Standard will enhance the capability of communications between airlines and travel agents and will be open to any third party, intermediary, IT provider or non-IATA member, to implement and use.

NDC will enable the travel industry to transform the way airline products are retailed to corporations, leisure and business travelers, by addressing the industry’s current distribution limitations: product differentiation and time-to-market, access to full and rich air content and finally, a transparent shopping experience.

In August 2014, Resolution 787, the foundation resolution supporting NDC, was approved by the U.S. Department of Transportation (DoT). Support continues to increase for the program and the approval from the DoT will inevitably enable even more support in the coming months.

As the momentum grows, IATA continues to work with travel partners to drive rapid implementation, industry implementation pilots and alignment sessions with airlines to provide a full picture of the NDC program across the organization, to all different stakeholders involved.

**e-services**

The IATA e-services project aims to facilitate the implementation of the Electronic Miscellaneous Document (EMD) IATA standard. An EMD document allows the tracking of the sale and the usage of additional services, such as service fees, excess baggage or lounge access, in an electronic record: it helps to remove the remaining paper documents of the airline ticketing processes. It is recognized that this is the first step in digitalizing a legacy paper process, with the ultimate aim of re-designing some of its accounting functions (see Customer Order Transformation).

Currently, nearly 175 airlines have implemented the EMD standard around the world. By the end of 2014, the goal defined in 2010 by the IATA BoG to reach 100% EMD in the Billing and Settlement Plan will be achieved. This will then enable the industry to move forward towards the next phase: Customer Order Transformation.

**Objective 2: Real Time Interaction**

**Customer Contact Information**

The idea behind the Customer Contact Information project was to enable the industry to interact with the customer at anytime and anywhere. The scope of the project was also to provide airlines with the ability to obtain the passenger contact details in the Passenger Name Record (PNR) by developing standards and recommended practices for contact information.

A set of industry standards and recommended practices was endorsed by the IATA Agency and Passenger Conferences effective 1 January 2014. Four major Global Distribution Systems have implemented the industry standards and airlines are gradually deploying them in their systems. IATA is developing an engagement strategy as well as proposals for industry metrics and targets for travel agency PNRs with Customer Contact Information.
Objective 3: Seamless & Hassle Free

Smart Security

The passenger security screening process works—but at great cost to authorities, the airline industry, and to passengers themselves. Given the predicted growth in air travel—and continuously evolving security threats—today’s model is not sustainable for the long term.

Smart Security aims to enable an uninterrupted journey from curb to aircraft door, where passengers proceed through the security checkpoint with minimal need to divest, where security resources are allocated based on risk, and where airport amenities can be maximized.

IATA and the Airports Council International (ACI) are working on the deployment of Smart Security proof of concept implementation at various airports and respective governments.

Baggage

The StB strategy for baggage is now to focus on Bag Facilitation through Bags-ready-to-go under Fast Travel and modernizing the legacy messaging capabilities by removing complexity and enabling customer transparency utilizing modern technology standards such as Baggage Message Migration.

Baggage Message Migration aims to reduce complexity and modernize the legacy Type B baggage messaging infrastructure. This will lead to better baggage performance and lower airline costs. In 2014, IATA will complete a pilot for XML data sharing between two airports and two airlines. The data shared will be baggage processing data of the type currently associated with baggage tracking.

Fast Travel

The Fast Travel initiative responds to consumer demand for greater convenience. It consists of six projects designed to offer a range of self-service options that give passengers more control over their journey: check-in, bags ready-to-go, document scanning, flight re-booking, self-boarding and bag recovery. The IATA BoG target for 2014 is to attain 27% global Fast Travel penetration.

Security Access and Egress

The Security Access and Egress project sets out to improve the passenger flow at security checkpoint with existing technology and infrastructure in order to support passenger growth and reduce delays caused by security.

IATA and ACI are working together to analyze passenger flows with the aim of increasing efficiency, reducing waiting times and improving passenger satisfaction by tackling elements that can be improved through passenger information, passenger identification, education and process redesign.

Automated Border Control

With international travel constantly growing, increasing throughput capacity is vital for border control authorities, airlines and airport operators. New technologies should be used not only to increase security, but also to enhance convenience, (e.g. to reduce time spent at border control). Furthermore, this is not only achieved through automation of the current process - the industry must leverage new technology to link create a seamless end-to-end experience.

The promotion of ABC systems aims at improving the management and control of travel flows at the border by reinforcing checks while speeding up border crossing of regular travelers. This enables border guards to cope with the ever-rising number of border crossing without compromising security.

Supporting Infrastructure

Airline Industry Data Model

Today industry systems contain many inconsistent definitions – the same term has different meanings in different systems. In addition, multiple terms are used to describe the same concept – which prevents a seamless flow of data.

IATA’s Airline Industry Data Model is an infrastructure project that will upgrade our messaging standards development capability. Structured information will be available in an electronic repository. It will store industry-agreed vocabulary, data definitions and their relationships as well as the related business requirements. Viewable by anyone, it is equally available for developers to use in their own systems. The project lies across all three objectives and acts as the supporting infrastructure.

In addition, it aims to become a common point of reference to generate messaging standards that are interoperable (i.e. work with each other much better), faster to develop and easier to implement.

IATA will deliver an industry data model and define the governance and methodologies that can be used by all projects in need of XML standards.
2013 White Paper Ideas Update

Background

Last year the StB Think Tank identified three ideas to investigate further in support of Goal 1 – aiming at modernizing airline retailing and merchandising. These projects were moved into the conceptualization phase. They were each moved as part of a bigger idea that was identified in the 2014 Think Tank – Travel Communication.

Dynamic Product Engineering

The Dynamic Product Engineering capability is an evolution on how airlines construct and control their product inventory. The following maps illustrate how the implementation of the NDC standards will see an increasing role of airline Offer Management Systems.

NDC will help eliminate some of today’s inherent complex processes (e.g. the need for robust revenue integrity, complex proration and Agency Debit Memos) as a consequence of the offer being constructed by the airline.

Many opportunities are expected in the next few years by airlines and their respective system providers. The NDC initiative is currently driving this modernization and it is entirely up to individual airlines to innovate further in this area.
**Order to Cash**

Order to Cash challenges the established industry booking and ticketing capability facilitated through the Passenger Name Record (PNR) Special Service Requests (SSR) Electronic Ticket (ET) and Electronic Miscellaneous Document (EMD) processes. The StB developed the new concept of a single airline customer order – which will transform and modernize industry back office functions and facilitate customer service delivery. In support of this, an extensive study was commissioned by IATA and conducted by Nyras which confirmed existing processes are not fit-for-purpose. This study endorsed the new concept of single customer order which has the potential to save billions of dollars for the industry, radically reduce complexity and enable agility in modern retail world.

The Order to Cash idea has evolved into Customer Order Transformation. The full description of this initiative is detailed under the next section of this document. It has the potential to remove considerable costs to the industry, radically reduce complexity and enable agility in the modern retail world.

To better understand StB driven initiatives like NDC and Customer Order Transformation just watch this [video](#) – "From Airline distribution to Air Retailing".

**Universal Customer Travel Data Exchange**

The Universal Customer Travel Data Exchange idea focused on the lack of harmonized messages from stakeholders (i.e. travel agents, GDSs, airlines, etc.) especially in the event of disruption.

The legacy industry architecture is not customer centric. Instead the customer interaction is transactional, driven by PNR logic. The development of a unique customer identifier, recognized across the value chain, would greatly benefit customer servicing for all stakeholders in the industry. The Universal Customer Travel Data Exchange was the methodology selected by which entities could seamlessly assemble relevant information about customers from multiple sources of data assuming that all data privacy concerns are addressed and specifically that the customer is in agreement with the data being shared.

Today, the focus has evolved from the Universal Customer Travel Data Exchange to the more all-encompassing Travel Communication idea (read more later in this document). In addition, there are elements that were also shifted to the Customer Order Transformation and Industry Data Model initiatives.
In 2014, the StB Think Tank focused on three game-changing and transformational ideas: Customer Order to Cash, Travel Communication and Future End-to-End Experience. Two of the ideas, Travel Communication and Future End-to-End Experience resulted from the ideation phase completed by the Think Tank in early 2014. The Customer Order Transformation idea came from the 2013 Think Tank idea called Order to Cash.

**Idea 1: Customer Order Transformation**

This initiative is challenging airlines’ core reservation and ticketing systems capabilities due to their legacy, costly and complex nature. With NDC, we have simplified the industry to be able to merchandize their products. Now, there is a need to transform the remaining processes around order and delivery of those products whilst delivering a seamless customer experience using modern digital technologies.

**Idea 2: Travel Communication**

This initiative aims to enable multiple industry stakeholders to communicate to the passenger consistently across all touch points with up to date and accurate information that the passenger knows can be trusted.

The Travel Communication project builds upon other former concepts like the Travel Information Brokerage and Universal Customer Data Exchange initiatives (StB 2013 Think Tank ideas that will be explained more in this document).

**Idea 3: Future End-to-End Experience**

This initiative includes an all-encompassing view of the entire passenger process. Building on the process optimization/elimination and passenger data and identity management initiatives, the aim is to map out the entire process and identify the areas (including processes) to optimize and innovate.
Customer Order Transformation

While some industry functions will be simplified by the NDC initiative, there are more ground-breaking initiatives needed to transform the order and delivery processes in a world where airlines merchandize more complex products (i.e. bundling and unbundling of content, additional options, dynamic packaging, etc.). Some of the artifacts built over time like PNR or ET/EMD were not designed with this level of complexity in mind.

Vision

Towards a single customer order: modernizing airline merchandising delivery

The vision is articulated around three core principles:
1. Customer oriented architecture
2. Efficient billing and real-time synchronization of relevant information between all parties
3. Simplified airline merchandising delivery

Industry case for change

For the customer – It’s confusing

When it comes to check-in or requesting any change to their itinerary, the customers are confused about which order references (airline PNR, GDS PNR or ET) they are supposed to provide. They would clearly benefit if they had a single receipt instead of a separate reservation (stored in a PNR) and a separate sales record (stored as an ET/EMD) that need to be synchronized to reflect a customer order.

For airlines – It’s not scalable

When airlines moved from paper to e-tickets, the industry did not seize the opportunity to re-engineer the processes; we merely automated the paper. As a consequence, the different requirements built over time for booking, ticketing and fulfillment are not connected seamlessly as one process – adding further complexity to airline systems. Booking ancillary products has also not greatly evolved since SSR were inserted in PNR to notify specific passenger requirements or services (whether free or payable): this is not scalable in the long run to support a reliable delivery of the complex merchandizing airlines wish to sell today.

For travel agents – It’s complicated

Travel agents welcome the convenience of the ET, EMD or booking confirmation as receipts for their customers and as an accounting document. However, travel agents struggle to have consistent methods to book flights and ancillaries depending on airline business models, and they are exposed to complex business rules to interpret in both the booking process and fare selection. A modernized single customer order will further facilitate servicing, tracking and accounting of purchases.
From PNRs/tickets to Orders

Today’s role of PNRs and tickets

Over the past 40 years, the process of taking orders for flights has been driven by PNRs (and SSRs for free or paid extra service): it contains relevant travel information that can be exchanged between various airlines/agents/airport systems. In parallel, the confirmation of payment of those orders generates an ET (or EMD). Setting aside for a moment any regulatory or contractual concerns, a PNR together with the ET/EMD is simply a tool to transmit data.

The ET/EMD are used mainly for accounting purposes to facilitate financial transactions and reconciliation between industry partners, especially in interline scenarios. The PNR plays a remarkable role to transmit consistent data to airport Departure Control Systems and ground handlers. Much of the data however, is duplicated in both the PNRs and the ET/EMD: and today this requires complex reconciliation processes.

IATA has been facilitating these processes with written resolutions, data elements and messages exchanged between parties. The evolution of current standards has been based on technology available in times past - for example an ET and EMD has a maximum of 16 coupons simply because this was the maximum message size accommodated by industry messaging in the 1970s. Such constraints, in a fully digital world, should not exist - especially when there are no compelling business arguments.

NDC opportunities: order ID# – interlining agreed at time of shopping

NDC provides modern standards for communication between industry players to enable retailing opportunities (shop, order and service) through indirect channels (aggregator/travel agent, etc.). However, it does not examine any of the airline or agent back office processes and systems in areas such as reservation, ticketing/invoicing or departure control.

Under NDC, an order ID# is a unique identifier confirming that an NDC offer has been accepted and paid. The order ID# is generated and stored by the airline and includes comprehensive information of services entitled. In the online retail world, this is commonly called a Purchase Order ID.

In the NDC interlining scenario, a real-time conversation between the interline partner(s) will enable interlining conditions (prices, rules, entitled services, etc.) to be known at the time of shopping. Then a confirmation that services have been consumed will trigger the interline billing and settlement between parties. Consequently, the NDC interlining concept creates huge simplification opportunities: proration will not be required, complex interline-ET/EMD may become obsolete and innovative new ways to facilitate cooperation between carriers or third parties will become possible.

A new concept to move today’s PNR and tickets to the order

PNR/SSR/ET/EMD are, in effect, various forms of order identification which are replicating similar information unnecessarily given the evolution of the available technology to date. The aviation industry now needs to consider adapting a more modern retail approach – a single reference that will be extendable and sharable across industry partners.

In parallel, NDC unlocks the opportunity to rethink the order management processes and introduce the notion of an “order” that can combine and supplant the role of PNRs and ETs and EMDs.

It’s time for the industry to adopt a modern airline order concept which would feature the following characteristics:

1. A single access point with standardized customer reference ID# providing a complete inventory of the orders.
2. An expandable data file structure enabling transmission and synchronization of any relevant information to third parties. Data transmitted should be targeted based on the receiver’s right and include any relevant delivery or financial information needed to service the customer.
3. Operational data feeds to:
   • Issue itinerary receipt, boarding token or any travel entitlement documents
   • Inform downstream airport processes or any entities involved in services delivery
   • Track service delivery and inform industry partners involved
4. Accounting and payment data feeds to:
   • Bill upon completion of servicing (agents, interline partners, participants in the order): this could be fulfilled by industry money transfer facilities like BSPs/ICH or bilaterally
   • Enable multiple payment transactions
   • Instantly report financial information

The modern order approach can be enabled by a standardized industry data model complementing NDC messaging. This order concept may be logical rather than physical: it enables the notion of PNR, SSR, and ET/EMD to be retained by airline internal systems if architects prefer, but the crucial thing will be to ship the relevant data information based on business interactions.

IATA’s role in moving to an order concept, will be to allow systems providers free reign on their architecture definition and to facilitate a shared industry vision and interoperability standards. Some systems may integrate ticketing and EMD information into their (extended) PNR and redesign the order management to fit with today e-commerce best practices, whereas others will stay with their current data structures.
Industry benefits

Improved products delivery with better information access from customers to third parties

When fully adopted, the order concept will facilitate a single universal access to information, using a common data dictionary. Customer itinerary receipts will be referenced by one identifier facilitating servicing and interaction across industry players (travel agents, interline partners, airports’ ground handling agents, catering companies, third party resellers, etc.) This receipt – with electronic data files attached – could have extendable orders with clearly defined services entitlement.

Expand interlining cooperation with low cost carriers in the context of NDC

Many carriers (largely low cost carriers) have replaced tickets with a single electronic customer order record confirming payment and service delivery data. By choice many of these carriers have avoided the interlining complexity in its current form. However, the industry has witnessed a growing demand for cooperation between low cost carriers and long established traditional carriers and this initiative, together with NDC, creates industry opportunities to simplify interlining and better enable cooperation between airlines using different business models and technology.

Cost savings and further back office process simplification

By merging booking and ticketing functions, the order concept should drive simplification on product delivery and accounting functions by avoiding redundant data feeds between parties or internal reconciliation. This massive simplification and the removal of historical processes should save considerable amount of money to the industry and facilitate the current airline merchandizing trend.

Next steps

In order to fulfill the described vision, the mindset of the industry requires some change. The question should be, “I want to interline, how do I achieve it?” rather than, “I want to interline therefore I need a PNR and a ticket”. IATA will facilitate the industry evolution toward the order concept with the following actions:

- Set-up a program to transform airline commerce by focusing solely on business requirements and designing a modern retail platform not constrained by today's process around reservations, interline and ticketing processes.
- Define a framework that will incorporate accounting data into the order rather than having separate accounting documents (ET/EMD).
- Revisit order delivery in airport environment or via third parties.
The Travel Communication idea incorporates the 2013 exploration idea, Universal Customer Travel Data Exchange. The Universal Customer Travel Data Exchange idea focused on exploring the industry requirements of a transparent industry-wide customer travel data exchange, benefitting all travel stakeholders in the value chain.

Vision

Reducing the complexity and providing consistent and truthful travel communications to passengers, across all touch points, through transparent and up-to-date information from a single trusted source.

Background

The digital revolution allows passengers to access services and communicate without boundaries. Today, the average passenger is always on their mobile and has constant access to the web and the social media world. In today’s digital world, there are large volumes of data that are available. Still, passengers need to actively search for information concerning their journey.

The information that comes from multiple data sources is often inconsistent and may be misleading. The airline that holds the passenger contact information often provides information on basic data points if the process is controlled by the airline. However, throughout the travel journey, the passenger has to interact with multiple stakeholders such as airports and governments that cannot reach out to the passengers. Some of this interaction is driven by regulatory requirements, other elements allow the passenger to take advantage of optional services. This usually means that the passenger needs to rely on social media or other websites for trusted information.

The aim of the Travel Communication idea is to provide passengers with accurate and real time data. The project will look at a trusted source to certify the data and provide the information in a standardized way, so the information can be accessed by multiple parties to ensure the information provided to the passenger is consistent and correct. Technology is a key enabler for delivering consistent information across all touch points.

Scope

Cooperation across the industry and air travel value chain to integrate data throughout the travel journey and to provide passengers with a consistent and holistic view. This involves gathering insight from multiple sources with a single output utilizing modern publish and subscribe methodologies. This can incorporate the customer’s personal context, if desired, such as social media.

The passenger and the entire air travel value chain will get the information related to the journey from a trusted source, at the right time (in real time).

Next steps – to deliver

The next steps include delivering the business requirements and addressing the following items:

- Type of information to provide
- Trusted source of information
- Potential recipients of the information
- Information delivery methods and timing
- Information type: static/dynamic
- Customer touch points (physical and digital)
Future End-to-End Experience

Background

The IATA STB program has delivered improvements across the 14 steps (identified in 2010 describing the passenger process from reservation to the final destination) through various projects over the years. These projects resulted in automation of existing processes and more control to the passenger. For example, the Fast Travel program provided passengers with the opportunity to choose from a number of self-service options ranging from check-in, bag drop, regulatory requirements and disruption management to self-boarding and self-baggage claim. Other projects like Security Access and Egress and Automated Border Control have aided to ease queuing times at security and immigrations.

Although these initiatives have enhanced different areas of the passenger experience — it is not enough. These initiatives are also limited in delivering value because they operate in the domain of each individual stakeholder; the airline, the airport and the government authority. The industry has not successfully eliminated the touch points where the same checks, controls and verifications are often done in a repeated manner.

The idea of the future End-to-End Experience is to look at the 14 steps and optimize the entire process by implementing innovative solutions to often outdated legacy processes. The passenger’s experience should be the focal point and the processes of the future should be designed to make travel more seamless, safe and secure. There should be an interactive conversation with the passenger throughout the journey on all aspects of their travel.

Currently, IATA is working on various parts of the end-to-end experience that will enable the end-to-end vision. For example, the elimination of check-in will make a huge impact on the current process. It is an example of a process that is becoming increasingly irrelevant and still imposes a great burden on the passenger’s experience.

The next step should be to eliminate all processes that add no value, create hassle and stress for passengers, complexity for airlines, airports, and regulators and have a negative impact on the passenger experience. The future End-to-End Experience will also result in greater airport capacity from existing infrastructure. All industry stakeholders should work together in transforming the way air travel is done today to a truly seamless experience both on the ground and in the air.

Vision

A transformed door-to-door experience, allowing the passenger to seamlessly walk-through the airport, without breaking stride.

Future process

Historically, we have used the 14 step model to describe our business. However, with growing demand for airline travel, this model needs to be simplified. We need to eliminate the need for processes to happen within the physical airport space and utilize digital touch points with the customer being able to complete the vast majority of the process in advance of travel. The realization of this vision requires us to shift focus from the 14 steps and align on two main steps that not only provide the customer with certainty about their travel plans before they leave for the airport, but also an ability to deliver smart security and a streamlined immigration process.

First, prior to travel, the customer submits all relevant information about themselves, including identity and itinerary data to the relevant stakeholders (airlines and government agencies). In return, the stakeholders validate and subsequently authorize the data — this can happen prior to travel. The customer then receives assurance that their travel plans are all in order and they are ready to fly.

Second, when the customer arrives at the airport, it is necessary to ensure “they are who they say they are”. This creates the bond between the physical person and the authorized data and provides the necessary identity assurance that enables a seamless airport experience for the passenger.

Lastly, a complete end-to-end process also includes baggage, immigration and customs. Future baggage solutions will be developed to facilitate the seamless drop off of baggage either at the airport or prior to arrival at the airport. In addition, although security and immigration processes are still required, their effectiveness and efficiency can be significantly improved through better collaboration between stakeholders. We must work together to complete and deliver the concepts above and the additional focus on baggage, security, immigration and customs. Once accomplished, these initiatives provide the infrastructure for our industry to deliver streamlined and seamless services — with the passenger experience, rightfully, as the priority.

Next steps

To make this global vision a reality, airline, airport and regulatory collaboration and cooperation is essential in defining the common agenda and proceed to remove the physical barriers that exist in airports today and move to create a digital environment. IATA is inviting all stakeholders, airlines, airports and government agencies to work together to articulate the detailed future end-to-end vision.
StB Roadmap

**Airline Products**
- Empower airline retailing and merchandising

**Real Time Interaction**
- Provide customers with trusted, accurate and real-time information from all operators throughout their journey

**Seamless & Hassle Free**
- Optimize the number of customer processes and related wait times throughout their journey

**Conceptualization**
- Travel Communication
- Future End-to-End Experience

**Exploration**
- Customer Order Transformation (COT)

**Development**
- New Distribution Capability (NDC)
- Smart Security Baggage Message Migration

**Implementation**
- e-services / EMD
- Customer Contact Information
- Fast Travel Security Access and Egress Automated Border Control

**Supporting Infrastructure**
- Airline Industry Data Model
Conclusion

Everyone can agree that the industry is in dire need of transformation to reduce the complexity in dated systems and processes that do not deliver benefits to the customers.

Collaboration is essential to change and focus on provide our customers with a safe, secure and seamless experience. Our focus needs to be on innovation and finding new ways to transform the industry.

For the first time in years, the focus has been truly to look at ideas from the customer perspective using business requirements built from the ground up rather than through evolution – this will enable a radical transformation.

The Think Tank will continue to think of new transformational ideas to bring to the table. By the end of 2014, StB will select ideas for 2015. Currently, there is one idea being considered: eliminate codeshare in an NDC world. We will participate in discussions and thoughts raised during the 2014 WPS for potential additional ideas to be considered for 2015. We are open to any additional ideas from the industry.

There is also a similar change program recently developed under the IATA Financial Committee that adopts the StB approach. This group will focus on financial ideas, including the financial side of Order to Cash. More information will be available in the Financial White Paper that will be published shortly. Innovation and transformation is the way to a successful future and these two Think Tanks will work together when necessary to ensure that there is one single global strategy and plan.

We need to work together. It will only be successful if we all collaborate share the same vision and actively take part in these initiatives.
Contributions

IATA wishes to thank all contributors to this paper. The names of participating airlines and strategic partners are listed below.

Airline Delegates

Glenn Morgan  
Head of Digital Business Transformation, International Airlines Group

Rob Broere  
Vice President IT Passenger Services, Emirates

Louise Lanoix  
Chef de service, Experience clientele et innovations, Air Canada

Val Connery  
Manager Customer Services Information Systems, Air Canada

Russ Fortson  
Manager Customer Services and Product, Development Airports, Cathay Pacific

Jules van Kempen  
Manager E-Services, KLM

Udo Janurek  
Director Product Management Passenger Technology, Lufthansa

Strategic Partners

Daniel Friedli  
Travel and Transportation Product Strategy, Hewlett Packard

Stephen Luurtsema  
Associate Partner, Travel & Transport Europe, Global Business Services

Vijay Anand  
Senior Director & Global Lead, Travel, Transportation & Logistics Industries, Oracle Corporation

Steven Ratcliffe  
Product Director Merchandising, Travelport

IATA  
Facilitator

Tanya Gagliardi

Subject matter contributors

Lisa Angiolelli
Paul Behan
Stephan Copart
Sebastien Touraine
Dimiter Zahariev