



# New Distribution Capability (NDC)

*Together Let's Build Air Retailing*

## 2015 Pilots Report

January 2016

Author: **Valerie Courtas**, Manager NDC Implementation



## Executive Summary

In 2015, there was an increase in the number of deployments showing a clear engagement of airlines and agents in embracing the NDC standard. The NDC schemas are now not only proven to be fit for purpose but they are clearly supporting airlines in their distribution strategies. Indeed, 15 of the top 20 Airline groups have already deployed or have plans to deploy NDC in the near future.

### What were the highlights in 2015?

- ▶ 16 pilots publicly shared their findings in 2015: BA, YO, BE, EI, S7, QR, RG, TZ, QF, 7I, G3, AA, CA, SC, HU, CZ
- ▶ More than 10 airlines delivered live transactions: YO, BA, QR, RG, 7I, G3, AA, CA, SC, HU, CZ
- ▶ Messages were fully approved in the first industry standard PADIS Publications 15.2
- ▶ 4 case studies were delivered: BA, YO, RG, UA
- ▶ New scenarios were validated – first deployments including Order Management messages; 5 new sets of ancillaries were validated: Wi-Fi, meals, lounge access, special services and duty free; first pilots involving a Travel Management Company (G3, EI, 7I), first live transaction through a metasearch engine (BA)
- ▶ IATA first Hackathon, in partnership with Tnooz, gathered close to 100 developers who, in 24 hours, were able to demonstrate innovation in the area of airline merchandizing, using an “IATA-NDC” sandbox.

### What were the major findings?

- ▶ Strong planning and education on the NDC concept and on the schemas is necessary
- ▶ Technical and organizational alignment is needed for a successful NDC deployment
- ▶ Offer and Order Management coverage is increasing: 75% of pilots have implemented both Offer and Order Management concepts ; several new IT providers in 2015 but still opportunities for more and for IT solutions to mature
- ▶ New ancillaries (air and non-air) were merchandized but no integration with 3rd party systems
- ▶ NDC schemas are fit for purpose, 6 airlines (50% of pilots) migrated from a previous version of the standard and 3 started directly on NDC 15.2
- ▶ New NDC IT solutions are bringing efficiencies to travel agents especially in the area of possible “multi content displays”

### And, what's next for 2016?

In 2016, IATA is targeting a minimum of 20 cumulative live NDC deployments. The focus for new deployments will be on increasing the number of offer and order management deployments and testing interlining transactions. IATA will concentrate on getting additional input from corporate buyers and Travel Management Companies to better understand their challenges and opportunities; and when possible to obtain feedback on their NDC deployments. IATA is also ready to support NDC transactions through the BSP and is looking forward to seeing the first transactions processed via NDClink with a complete payment cycle to the airline (which will be seamless for the travel agent).



# Introduction

New Distribution Capability enables the travel industry to transform the way airlines products are retailed through the development of a modern, XML-based data transmission standard (NDC Standard) for communications between airlines and travel agents. The NDC Standard is open to any third party, intermediary, IT provider or non-IATA member, to implement and use.

Each airline has its own view on NDC and how it can support each airline's independent distribution strategy. In some cases it is a matter of generating additional revenue, for example by the ability to sell seats, bags and other simple ancillaries. For others it is an opportunity to save costs through simplification and better channel management. NDC can also be seen as an opportunity to align direct and indirect channels. Indeed, NDC provides the capability to sell more sophisticated products only available on the airline website through the indirect channel and allows differentiation through the use of rich media.

Since 2013, IATA has been delivering a yearly pilot report describing the experience of the participants during the NDC implementation process. Many more stakeholders are now focusing on deployments and along the way IATA continues to listen, report findings and capture lessons learned from those who are willing to share. This document is first intended for the members of the Passenger Distribution Management Group Working Group (PDMG WG)<sup>1</sup>. The findings are being used by the PDMG WG to continuously validate and enhance NDC business requirements and the related schemas.

The document is divided into 4 sections:

1. **Who is implementing NDC?** This section introduces the work of each pilot since 2013.
2. **What was the focus in 2015?** This section presents an overview of the 2015 deployments.
3. **What were the major findings?** This section gives a summary of the main lessons learned, the main barriers for adoption and main benefits for the travel agents.
4. **What is coming next?** This section gives insights into the pilot/deployment focus for 2016.

And an appendix which features the details for each of the individual airline deployments and pilots.

General Disclaimer: IATA has taken all reasonable care in producing and publishing the information contained in this pilot review. All information contained herein has been obtained through the consent of Pilot participants. The report is by no means a comprehensive list of all NDC implementations in the industry.

The report displays information as of 31<sup>st</sup> January 2016.

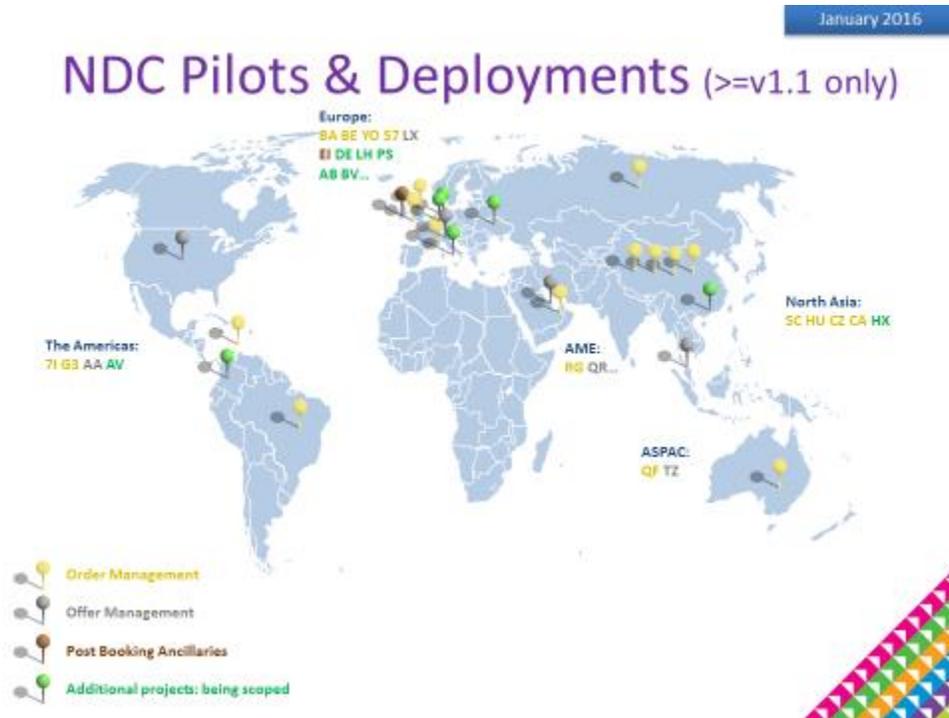
---

<sup>1</sup> The Passenger Distribution Management Group Working Group (PDMG WG) is comprised of up to 80 participants representing airlines, global distribution systems, IT providers, travel agents and other industry third parties. Its primary role is to document detailed business requirements and develop implementation guidance for data exchange standards in the area of airline distribution.



# 1. Who is implementing NDC?

This section contains an overview of all pilots since 2013 with a specific focus on those carried out in 2015:



## Overview of NDC Pilots and Deployments:

→ Airlines with live transactions

**Aer Lingus** in its continuous drive to be at the forefront of technological advances, is piloting the Shopping schemas to further enhance its retailing and merchandising capability with industry partners. This pilot concentrates on offering a rich retailing opportunity to travel management companies wishing to add value to their customers travel experience. Aer Lingus is pleased to partner with Club Travel for the distribution of ancillary products in a third party environment. (NDC Schema: 15.2)

**Air Canada** piloted the Airline Profile under the leadership of ATPCO and OAG. The pilot consisted in understanding and addressing the challenges of implementing an Airline Profile created by Air Canada, stored and distributed by ATPCO and used by FareCompare. The Airline Profile pilot has demonstrated how an airline could use the Airline Profile to control the volume and types of shopping requests coming from the seller of airline products.

**Air China** in cooperation with TravelSky, piloted the NDC end-to-end schemas in order to validate that the schemas support the successful sale of international air tickets and prepaid baggage ancillary services with two agents, Ctrip and China Air Service ('Phoenix Dances' pilot). (NDC Schema: 1.1.3) →

**Air New Zealand** in cooperation with the same US-based consolidator and with the support of IT provider JR Technologies, piloted the Shopping schemas for the distribution of their "SkyCouch" and "Deluxe" products in a third-party environment. The pilot focused on enabling the delivery of rich product description and content related to these two products to their travel agency partners.

**American Airlines** participated in a pilot of the NDC offer/order processes in cooperation with IT partners Reserve and Farelogix. The initial phase of the pilot centered on the order fulfillment of tickets with ancillary merchandizing utilizing Reserve NDC gateway, NDC merchandizing engine, and end user interfaces for BSP travel agent sales channels. (NDC Schema: 1.1.0 and 1.1.3) →

**British Airways** piloted the NDC end-to-end schemas with the goal of more effectively distributing its products through third party channels. The focus is on the distribution of flight ancillaries, which gives the opportunity to travel agents to select them in the same way as they could through the airline website. (NDC Schema: 1.1.3) →

**China Southern Airlines** in cooperation with Ctrip and TravelSky, China's global distribution and passenger services system provider, has migrated in 2015 to shopping schema version 1.1.3 and has implemented Order Management to test if the schema could fulfill the domestic one-way air ticket sales process. (NDC Schema: 1.1.3) →

**Flybe** in cooperation with Hewlett Packard Enterprise (HPE), is implementing an end-to-end pilot aiming at making Flybe's ancillary and inventory products accessible through agents connected to Travelfusion using NDC. This is accomplished by the use of the HPE NDC Adapter technology making it seamless to agents and efficient for Flybe. The implementation demonstrates how Flybe leverages the existing landscape provided by a harmonized NDC standard. (NDC Schema: 1.1.3)

**GOL Linhas Aéreas Inteligentes** in cooperation with the TMC Flytour and the consolidator RexturAdvance, both based in Brazil, has embarked on a NDC pilot with its Passenger Services System Provider, Navitaire. The project focused on NDC Shopping and has been live since December 2015. (NDC Schema: 1.1.3) →

**Hainan Airlines** in cooperation with CTBA and TravelSky, piloted in 2014 the Shopping schemas in order to validate that they support the distribution of their domestic air products through local travel agencies ('Skydreamer' pilot). In 2015, the airline expanded the scope of the pilot to include the Order Management schemas in order to simulate an end-to-end transaction, and test their capability to distribute more rich content to CTBA. (NDC Schema: 1.1.3) →

**Heli Air Monaco** under the leadership of APG and Orchestra, piloted the Shopping schemas with the goal of creating and distributing personalized offers through their website and mobile apps, using customer profile and advanced search criteria. These personalized offers are integrating some of the company's



luxury products such as limo transfers and panoramic flights and feature rich content. (NDC Schema: 15.2)  
→

**InselAir** in cooperation with its IT partners JR Technologies and SITA, has implemented bundled and unbundled ancillary merchandizing using the NDC standard. InselAir is currently retailing their products to both corporate agents as well as other travel agents. The pilot has gone live in December 2015, after which the scope will expand to online travel agents and additional functionality. (NDC Schema: 15.2) →

**Qantas Airways Limited** in cooperation with an Australia-based industry partner is piloting the NDC Shopping schemas for the distribution of their Chauffeur Drive product in a third party channel environment. (NDC Schema: 1.1.3)

**Qatar Airways** in cooperation with Farelogix, tested a number of the Shopping schemas with selected travel agents. This pilot focused on showcasing the airline's premium products across all cabins to travel agents. (NDC Schema: 1.1.0 and 1.1.3) →

**Rotana Jet Aviation:** The basic premise of Rotana Jet is to simplify the purchase of travel products, giving customers a “quick click” experience similar to purchasing from online retailing stores and also to have one record referencing all travel elements within an offer. Rotana Jet has implemented NDC schemas via their third party IT provider (TPConnects). This deployment is focusing on an end-to-end implementation with an emphasis on using the most recent NDC schemas. (NDC Schema: 15.2) →

**Scoot** is pursuing opportunities to offer more choices to their customers through the travel agency channel. In cooperation with Navitaire and Travelfusion, Scoot is piloting the NDC Shopping Schemas and aims to go live during Q1 2016. With NDC, agents will connect travelers to Scoot’s ancillary products such as additional luggage options or gourmet meals. (NDC Schema: 1.1.3)

**Shandong Airlines** in cooperation with TravelSky, piloted in 2014 the Shopping schemas in order to validate that the schemas support the successful sale of the aviation insurance ancillary sold through the local retail agent, Qingdao Huajun Air Service (‘FlyInJoy’ pilot). In 2015, the airline expanded the scope of their pilot to include the Order Management schemas and test the capability of NDC to sell ancillary services. (NDC Schema: 1.1.3) →

**S7 Airlines** is working on an NDC project with OnTravelSolutions Minsk and IT Provider Openjaw. The project is covering the full booking process, including issuance of documents. As part of this project, S7 will implement their first ancillary product: paid seat selection for a particular flight. (NDC Schema: 15.2)

**Swiss International Air Lines** in cooperation with Hewlett Packard Enterprise (HPE), Datalex and PROs, piloted the Shopping schemas in order to check their ability to support large transaction volumes. The pilot focused on managing dynamic pricing requests and measuring response time, in real-life scenarios such as flexible date shopping, comparison shopping, ancillary product shopping and personalized shopping. (NDC Schema: 1.1.1 and 1.1.2)



**United Airlines** in cooperation with its global distribution system (GDS) partner, Amadeus, and IT partner Farelogix, has implemented the Shopping schemas to sell dynamically-priced Economy Plus seats with extra legroom and other benefits. (NDC Schema: 1.0) →

**Virgin Australia** used the NDC Baseline schemas to support its change in business model from a low cost carrier to a full service carrier in 2012. This pilot also reviewed the proposed NDC security model in order to provide feedback on airline profiling, schema binding and finally NDC support for REST implementations. (NDC Baseline Schema)

## What did our participants say?

**Tye Radcliffe, United Airlines' Director of Distribution, Payment and Ticketing Systems, said:** "There are some very exciting, positive discussions going on taking place right now that are driving interest in indirect channels. There is no doubt the industry is thinking about distribution differently now."<sup>2</sup>

**Ian Luck, British Airways Head of Distribution, said:** "NDC enables British Airways to transform the way it currently retails and creates new opportunities for all parties in the travel industry, including GDS, IT developers, NDC service providers, travel agents, and corporates. It enables distribution of more of our products today, while being designed to support new products in the future."

**Sandrine de Saint Sauveur, President and CEO of APG, said:** "Heli Air Monaco is present in almost all global distribution systems and billing and settlement plans and has more than 110 interline agreements, NDC doesn't change our distribution philosophy as such but it does add an extra capability that enables us to sell our unique products to all of our customers, both existing and potential."<sup>3</sup>

**George Ibrahim, CEO of Rotana Jet, commented:** "We are glad to be the first airline in Middle East and Africa to go live with IATA NDC with the first publication of the latest NDC standard. As Rotana Jet develops bundled and unbundled offers, the travel community needs to be able to shop and compare the value of these options for their customers, just as they do when they shop online for any consumer items or walk-in to any retail shops. IATA NDC gives us the ability through the development of a modern, internet-based data standard for communications between Rotana Jet and the travel agents. With a complete deployment of NDC standard into our distribution system, air travelers will benefit from greater transparency and access to all our offerings when shopping via a travel agent or any of the Online Travel Agencies."<sup>4</sup>

---

<sup>2</sup> NDC case study: *United Airlines takes ownership of content* (February 2016)

<http://www.iata.org/whatwedo/airline-distribution/ndc/Documents/ndc-case-study-united-airlines.pdf>

<sup>3</sup> NDC case study: *Heli Air Monaco gets ahead of the curve* (June 2015)

<http://www.iata.org/whatwedo/airline-distribution/ndc/Documents/ndc-case-study-heli-air-monaco.pdf>

<sup>4</sup> <http://www.rotanajet.com/media-NDC>



**Cory Garner, American Airlines' Managing Director of Distribution and Data Commercialization,** said: "There are now products on the shelf that otherwise could never have been there. And airline products have evolved over time to be more than just fares; it's fares and ancillary products. With these NDC connections now rolling out, you're starting to see ancillary products coming onto GDS shelves that can be priced and booked and sold within the travel agency's normal workflow."<sup>5</sup>

---

<sup>5</sup> *Sabre-American NDC deal a shot in the arm for GDSs* - <http://www.travelweekly.com/Travel-News/Travel-Technology/Sabre-American-NDC-deal-a-shot-in-the-arm-for-GDSs>



## 2. What was the focus in 2015?

At the time of the report we can publicly share details of 16 pilots, 11 of them deployed NDC successfully in production in which passengers were able to make a booking through an agent. The remaining 5 pilots are still working towards going live before the end of the second quarter of 2016. The pilots involved a wide range of partners across the industry (see Figure 1). Additionally, participants have engaged in different types of deployments covering most of the scenarios enabled by NDC. Figures 2, 3 and 4 display information regarding the different functionalities deployed, the types of messages covered and the attributes being used.

**Figure 1:** Pilot Participants in 2015

Airline	IT Providers/Aggregators*	Travel Agent(s)
Aer Lingus (EI)	Airline IT department	Club Travel
Air China (CA) →	Travelsky Technology Limited	China Air Service
American Airlines (AA) →	Reserve, Farelogix	Copastur
British Airways (BA) →	Airline IT Department	Skyscanner, other undisclosed agent
China Southern Airlines (CZ) →	Airline IT department	Ctrip
Flybe (BE)	Hewlett Packard Enterprise, Travelfusion*	Selected travel agents through Travelfusion
GOL Linhas Aereas (G3) →	Navitaire, Reserve*	Flytour, Rextur-Advance
Hainan Airlines (HU) →	Travelsky Technology Limited	CTBA
Heli Air Monaco (YO) →	Resiber, APG-Orchestra	To be coming
InselAir (7I) →	JR technologies, SITA	InselAir affiliated TMC
Qantas (QF)	Airline IT department	Selected travel agents through Helloworld
Qatar Airways (QR) →	Farelogix	GTV Tours
Rotana Jet Aviation (RG) →	TPConnects*	Asia Group of Companies (Asia Travel)
Scoot (TZ)	Navitaire, Travelfusion	TBC
Shandong Airlines (SC) →	Travelsky Technology Limited	Qingdao Huajun Air Service
Siberia Airlines (S7)	Openjaw, Ontravelsolutions	Onetravel Minsk

\* IT providers with aggregation function in terms of their role in the pilot

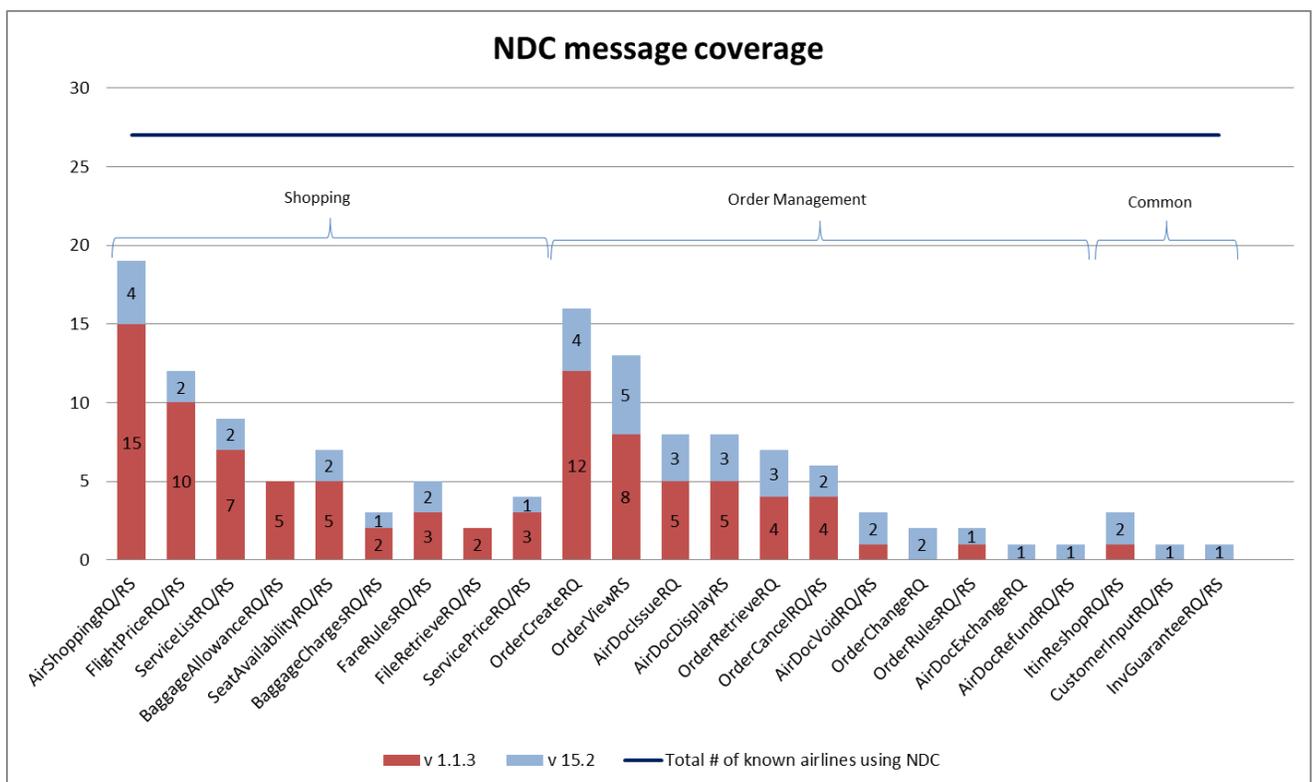
→ Airlines with live transactions in 2015



**Figure 2:** Airlines and functionalities in 2015

NDC Functionality	Airlines
Offer and Order Management <sup>6</sup>	BA, BE, YO, S7, RG, QF, 7I, G3, CA, SC, HU, CZ
Offer Management	QR, TZ, AA
Post booking ancillary <sup>7</sup>	EI

**Figure 3:** NDC message coverage (status as of January 2016)



<sup>6</sup> In this document, we refer to the notions of Offer and Order Management. Offer Management is the process of receiving requests for an airline’s products and services, constructing corresponding offers and sending those offers back to the seller. Order Management is the process of accepting, amending, tracking and fulfilling requests for an airline’s products and services.

<sup>7</sup> Post booking ancillary is the purchase of an ancillary after an order has been confirmed; and which may or may not be using the NDC schema.



**Figure 4:** Airlines and attributes in 2015

	Type of Attributes	Airlines
<b>Air Related</b>	Seats	YO, BA, EI, QR, RG, HU, 7I, S7, AA
	Baggage related	EI, QR, RG, TZ, BE, 7I
	Change Fees	BE
<b>Non-Air Related</b>	Travel Insurance	CA, SC, HU
	Car services	YO, QF
	Meals	RG, TZ
	Wi-Fi	RG
	Lounge Access	EI
	Special Services (Wheel Chair, Meet and Assist)	RG
	Duty Free	RG



### 3. What were the major findings?

Looking back over the last 12 months and as described by our participants in their one-pagers (see Appendix A – 2015 Pilots Details), 2015 has been a very successful year for NDC. 16 NDC pilots publicly shared findings, including 11 airlines reporting live transactions. This section concentrates on the learnings that have been identified after analyzing the data and information shared by the participants. This material is critical for IATA in order to provide proper guidance and best practices to the industry and future pilot participants. Indeed, the learnings provide direct feedback to the various trainings, education materials and feed the continuous improvement cycle of the standard and its implementation guide.

#### Strong Planning and Education

The pilot participants have expressed that a strong planning phase is necessary in order to involve and engage with all the stakeholders participating in the pilot. This planning phase should not be underestimated as NDC is not a simple concept to explain and impacts many functional areas. Many of the non-experts mistakenly interpret NDC as a system rather than a standard and this misunderstanding is one of the reasons for resistance to change. Adoption will increase and become easier as knowledge and experience grow. Additionally, the fact that NDC is an industry standard will enable significant benefits over the long term both in terms of cost effectiveness and speed of deployment.

To foster adoption and help the participants overcome some of the challenges they have faced, IATA has produced a significant amount of educational material available on our website at: [www.iata.org/ndc](http://www.iata.org/ndc) – in particular 2 “Change readiness Guides” for Airlines and Business Travel.<sup>8</sup>

#### Alignment and integration

One of our participating airlines states that “...our organizational structure is very aligned to the legacy systems in place today.” This airline has realized the strong need to challenge its legacy systems and its organizational structure while embarking on the NDC journey. This is not limited to one airline and our experience shows that internal alignment is critical to a successful NDC deployment. As a matter of fact, a successful deployment requires a high commitment from all parties involved.

Technical integration can still be seen today as a challenge for adoption when bridging with old existing legacy systems. Pilot project teams usually find it much more effective to start with simple scenarios. They benefit from the initial learnings of integrating with their existing systems/processes and it gives them something tangible to build upon for their next phase of deployment.

#### Offer and Order Management

Compared to 2014, the scope of the NDC deployments has been extended. More and more participants are interested in deploying the full scope of NDC and are looking not only at post-booking ancillaries and shopping scenarios, but also Order Management. Indeed, in 2015, 75% of the deployments implemented

---

<sup>8</sup> *NDC Change Readiness Guide for Airlines* - <http://www.iata.org/whatwedo/airline-distribution/ndc/Documents/ndc-change-readiness-guide-v8-online.pdf> and *NDC Change Readiness Guide for Business Travel* - <http://www.iata.org/whatwedo/airline-distribution/ndc/Documents/ndc-change-readiness-guide-business-travel.pdf>



both Offer and Order Management messages. This has been made possible by the numerous IT partners providing products and services covering the full range of NDC schemas. During 2015, 10 new IT providers offered solutions using the NDC standard. This is excellent news for partners across the industry.

Some IT providers have demonstrated real innovation. One example is “HPE NDC Adapter,” that allows processing messages in different versions of the NDC schemas and translating them into a single version for easier and more efficient communication between the agents and the airlines. In 2016, IATA is hoping to see more and more NDC solutions to answer the growing needs of airlines and travel agents.

### Ancillaries

The pilot participants have been able to exchange messages related to a wide range of air and non-air ancillaries. The schemas have proven to be fit for this purpose. In 2015, the air-related ancillaries covered the areas of seats, baggage and change fees, whereas the non-air ancillaries focused on travel insurance, car services, lounge access, Wi-Fi, meals, duty free and special services such as wheel chair and Meet and Assist. The main attributes being piloted remain similar to those in 2014 in the area of seat allocations and baggage.

For non-air services, it is to be highlighted that these products are still managed by third-party providers as the schema does not support advanced functions such as decrementing inventories. The schemas today do not integrate into the systems of third-party providers (hotels, car rentals, etc.) either.

### NDC Schemas

Our pilot participants confirmed during their deployments that the schemas are fit for purpose and that the newest version released are meeting their requirements. In 2015, 6 airlines (50% of the pilots) migrated from a previous version of the NDC standard and 3 airlines started directly on the latest version released 15.2.<sup>9</sup>

### Benefits for the agents

Pilots are demonstrating more and more benefits for the travel agent community mainly in the areas of aggregation and agent support. The IT solutions deployed in 2015 are focused on bringing more efficiencies in the travel agents’ daily activities. For example, NDC Aggregators possess the capability to assess and integrate an airline’s NDC XML API with other airline content from one or more sources. Thanks to these tools, travel agents are more efficient in responding to passenger requests by providing them with more options to choose from the results of the airlines. The main challenge for these solutions remains to integrate all content on the front end to make the experience seamless for the travel agents. As JR Technologies reports: “The integration of non-NDC schemas with NDC schemas is pretty straight forward from a technical perspective. But from a content display perspective it is challenging. Airlines that offer rich content will appear in a better light even if they have a lesser product because the services that a non-NDC airline might have included in its fare are not visible on the first display.” IATA is looking forward to seeing some improvements in this area in 2016.

---

<sup>9</sup> YO and EI migrated from NDC 1.1.3 to NDC 15.2 ; BA, CA, SC, HU and CZ migrated from NDC 1.0 to NDC 1.1.3 ; RG, 7I and S7 started with NDC 15.2.



## 4. What is coming next?

As the NDC program develops, it is becoming more and more apparent that there are multiple paths to NDC deployment. Each airline has its own specific commercial and distribution strategy and will have different expectations from the NDC standard. As much as possible, IATA will capture the different deployment paths and the opportunities for improvement encountered. IATA will also continue to publish case studies and materials to support NDC adoption and help the industry understand the various deployments that are taking place. This will be made available on [iata.org/ndc](http://iata.org/ndc).

As we enter 2016, IATA is looking forward to the realization of the deployments started in 2015 and to supporting all those airlines who have announced their intention to deploy NDC shortly.

The focus of new deployments will be increasingly on Offer and Order Management and testing interlining transactions. Some airlines have already started discussions on interlining which the new schemas (version 16.1), that will be released this year, will support.

IATA will also concentrate on gathering additional input from corporate buyers and Travel Management Companies and helping them engage with airlines and IT providers in order to support NDC deployments. IATA is also ready to support NDC transactions through the BSP and is looking forward to seeing the first transactions processed via NDCLink with a complete payment cycle to the airline.

The next steps for airlines having deployed in a production environment will be to become NDC-certified. Certification will provide transparency on existing NDC deployments of airlines, agents and aggregators, as well as validating the capability of supporting IT providers. This certification process will examine the capabilities of airlines, agents and aggregators to receive and send NDC messages, testing specific NDC solutions. The NDC Certification Registry – listing NDC certified/capable actors – will be available on the IATA website during summer 2016.

Information on certification is available at [iata.org/ndc](http://iata.org/ndc) or via e-mail at [ndccertification@iata.org](mailto:ndccertification@iata.org)



## Appendix A - 2015 Pilots Details

This section is dedicated to each individual deployment completed or started in 2015 by region. The following pilot one-pagers have been provided to IATA by the respective pilot participants and display information as of 31<sup>st</sup> January 2016.



Europe



## British Airways (BA)



### Scope & Description:

British Airways has long employed a multi-channel distribution strategy. But as one of the airlines involved in NDC's development, it became increasingly clear that the transition to the NDC standard would allow the airline to be more effective in its product distribution through third party channels.

The scope of the project:

- ▼ To prioritize flight ancillaries, and particularly allocated seating, so agents can provide customers with the opportunity to select preferred seats in the same way as they could through the airline website
- ▼ To enable the airline to highlight the advantages of its premium products through the provision of additional details, as well as potentially supporting the inclusion of photos and other useful information.

### Participants:

- ▼ **Skyscanner:** Travel Agent
- ▼ Airline IT Department

### NDC Schema:

NDC 1.1.3

- ▼ AirShoppingRQ/RS, FlightPriceRQ/RS, SeatAvailabilityRQ/RS, OrderCreateRQ

### Pilot Comments:

- ▼ Need to balance the short- and long-term objectives of the project
- ▼ The fact that NDC is a standard language should facilitate adoption by all the key players involved in the travel industry and enable significant benefits over the longer term.

### Live Status:

- ▼ The pilot has been live since November 2015

### Benefits for the Agents:

- ▼ NDC enables travel agents to sell and display airlines' products and services, including the ancillaries (seating and additional baggage).
- ▼ Transparency for the customer during the booking process.
- ▼ Giving the passenger more options from which to choose while they are buying a flight.



## Heli Air Monaco (YO)



### Scope & Description:

Under the leadership of APG and Orchestra, Heli Air Monaco piloted the Shopping and Order Management schemas with the goal of creating and distributing personalized offers through their website and mobile apps, using customer profile and advanced search criteria. These personalized offers integrated some of the company's luxury products such as limo transfers and panoramic flights and feature rich content.

- ▶ The pilot scope made YO ancillary products available in the first phase for their own agent sales, and then be extended to travel agents and Metasearch engines.
- ▶ Includes limousines, private flights, merchandizing and other ancillary products depending on choices the business wants to make on these distribution channels. Return to agents a priced list of ancillary products.

### Participants:

- ▶ **Resiber:** is responsible for the carrier's inventory system. Resiber worked with Heli Air Monaco to analyze and optimize seat availability and fares for the caching system.
- ▶ **APG – Orchestra:** was Heli Air Monaco's technological provider for the NDC pilot and assumed responsibility for the technical design, including the new NDC-compatible modules, as well as the implementation of the proof-of-concept stage.

### NDC Schema:

NDC 15.2

- ▶ AirShoppingRQ/RS, FlightPriceRQ/RS, OrderCreateRQ, OrderViewRS, AirDocIssueRQ, AirDocDisplayRS

### Pilot Comments:

- ▶ A balance needs to be achieved between a comprehensive product display and a fast response to market. YO opted for a combined image and text approach.
- ▶ The need for a strong planning phase that incorporated all prospective project dynamics was one of the key lessons.

### Live Status:

- ▶ The pilot has been live since May 2015

### Benefits for the Agents:

- ▶ The agents will be able to purchase the ancillary products proposed by YO and listed above.



## Aer Lingus (EI)



### Scope & Description:

Aer Lingus, in its continuous drive to be at the forefront of technological advances, is piloting the Shopping schemas to further enhance its retailing and merchandizing capability with industry partners. This pilot concentrates on offering a rich retailing opportunity to travel management companies wishing to add value to their customers travel experience. Aer Lingus is pleased to partner with Club Travel for the distribution of ancillary products in a third party environment.

The scope will cover retrieving a booking made through any channel, and enabling the booking and payment for ancillaries including seats, additional baggage, sports equipment and lounge access. The aim will be to extend to other ancillaries functions covered by NDC.

### Participants:

- ▼ **Club Travel:** Travel Agent

### NDC Schema:

NDC 15.2

- ▼ ServiceListRQ/RS, SeatAvailabilityRQ/RS, OrderViewRS, OrderChangeRQ, OrderRetrieveRQ

### Pilot Comments:

- ▼ None provided

### Live Status:

- ▼ The pilot is scheduled to go live in the 1Q2016
- ▼ Coming next: finalize testing and go live

### Benefits for the Agents:

- ▼ The NDC pilot allows Club Travel to order, purchase and be invoiced for ancillaries in a much more efficient back office process.



## Flybe (BE)



### Scope & Description:

Flybe, in cooperation with Hewlett Packard Enterprise (HPE), is implementing an end-to-end pilot aiming at making Flybe's ancillary and inventory products accessible through agents connected to Travelfusion using the NDC schema version 1.1.3. This is accomplished by the use of the HPE NDC Adapter technology making it seamless to agents and efficient for Flybe. Phase 1 of the project concentrates on best price shopping, corporate rate shopping, pricing of a selected itinerary, creation of order (flights and pre-paid baggage) and issuance of electronic tickets and EMD.

### Participants:

- ▼ **Hewlett Packard Enterprise (HPE):** NDC Adapter technology provider for Flybe
- ▼ **Travelfusion:** Aggregator
- ▼ Selected Travel Agents connected through Travelfusion

### NDC Schema:

NDC 1.1.3

- ▼ AirShoppingRQ/RS, FlightPriceRQ/RS, OrderCreateRQ, OrderViewRS, OrderCancelRQ/RS, AirDocIssueRQ, AirDocDisplayRS

### Pilot Comments:

- ▼ HPE NDC Adapter technology demonstrates innovation by providing a solution that enables processing of messages in different versions of the NDC schemas and translating them into version 1.1.3 for easier and more efficient communication between the sellers and Flybe.

### Live Status:

- ▼ The pilot is scheduled to go live in the 1Q2016
- ▼ Coming next: Update to the NDC 15.2 release. Phase 2 concentrates on Re-shop for desired itinerary changes, update of the order and ticket re-issued.

### Benefits for the Agents:

- ▼ Agent will be able to book ancillaries using the version of NDC standard they have implemented
- ▼ Agents will have access to corporate rates and bundled fares



## Siberia Airlines (S7)



### Scope & Description:

S7 is working on an NDC project with Onetravel Minsk and Openjaw. The project is covering the full booking process, including issuance of documents. As part of this project, S7 will implement their first ancillary product: paid seat selection for a particular flight.

### Participants

- ▼ **Openjaw:** IT provider
- ▼ **Ontravelsolutions:** IT provider
- ▼ **Onetravel Minsk:** Travel Agent

### NDC Schema

NDC 15.2

- ▼ AirShoppingRQ/RS, ItinReshopRQ/RS, OrderCreateRQ, OrderViewRS, OrderCancelRQ/RS, OrderRetrieveRQ, AirDocIssueRQ, AirDocDisplayRQ/RS, AirDocVoidRQ/RS, FareRulesRQ/RS, SeatAvailabilityRQ/RS and OrderChangeRQ.

### Pilot Comments

- ▼ EMDs will be issued for paid ancillaries, so AirDocIssue/Display/Void have been updated to do these operations with both ETK and EMD.

### Live Status

- ▼ The pilot is scheduled to go live in the 1Q2016
- ▼ Coming next:
  - Review of NDC 16.1 schema for potential migration
  - Implement more paid ancillaries (extra baggage)
  - IATA certification procedure
  - Connect to more agents

### Benefits for the Agents

- ▼ Ability to access and sell ancillaries



AME



## Qatar Airways (QR)



### Scope & Description:

QR's overall objective is to deploy NDC in production i.e. making selected QR products available via the NDC standard to travel agents.

A phased approach was taken for the deployment. The initial phase was rolled out to a selected pilot travel agent in December 2015. The functionalities deployed in this phase included the following:

- ▼ Branded Fares
- ▼ Rich Media content
- ▼ Offer Management

QR is working with Farelogix to rollout selected ancillary services as part of the next phase of this pilot.

### Participants:

- ▼ **Farelogix:** IT Provider
- ▼ **GTV Tours:** Travel Agent

### NDC Schema:

NDC 1.1.3

- ▼ AirShoppingRQ/RS

NDC 1.1.0

- ▼ ServiceListRQ/RS, FlightPriceRQ/RS

### Pilot Comments:

- ▼ None provided

### Live Status:

- ▼ The pilot has been live since the end of December 2015

### Benefits for the Agents:

- ▼ Ability to sell special QR products that are difficult to sell using the current distribution systems
- ▼ Quick access to rich content



## Rotana Jet Aviation (RG)



### Scope & Description:

In cooperation with TPConnects IT provider, Rotana Jet has deployed NDC end-to-end in designing a new aggregator platform that acts as an intermediary between the existing PSS system provided via Radixx and the end users using the new platform. The NDC pilot is divided into two phases:

- Phase one of the pilot focused on promoting the new ancillary services using NDC schemas for B2B and B2C through the API platform provided by TPConnects. The ancillaries include seat selection, Wi-Fi, meals, wheel chair, extra baggage, duty free, meet and assist, in addition to existing SSR services provided by Radixx.
- Phase two of the pilot will be looking into a greater integration phase through the PSS provider via the creation of a merchandizing platform that connects to multiple sales channels with a broader scope of NDC messages.

### Participants:

- TPConnects:** Aggregator and IT Provider (RG's NDC API and merchandizing platform)
- Asia Group of Companies (Asia Travel):** Travel Agent

### NDC Schema:

NDC 15.2

- AirShoppingRQ/RS, BaggageChargesRQ/RS, InvGuaranteeRQ/RS, OrderCreateRQ/OrderViewRS.

### Pilot Comments:

- Can integrate NDC and non-NDC environments in one single platform.
- It is a ticketless carrier demonstrating the value of NDC.
- Using modular approach.

### Live Status:

- The pilot has been live since the end of October 2015
- Coming next: Expanding the services on RG's merchandizing platform and integration with additional sales channels; NDClink (BSPlink) integration and interlining; DCS connectivity.

### Benefits for the Agents:

- Have one interface where agents can access the airline's regular information and the ancillary services. Before they used to contact the airline to buy or book ancillary and non-air commissionable products and services. Now with NDC no need for that as the aggregator acts as a one-stop shop.
- More efficiency in responding to passenger requests and more attraction by providing them with more options to choose from the results in the airline.
- Receiving information from the airline directly which means less discrepancies in prices, and eventually less ADMs and misunderstandings.



ASPAC



## Scout (TZ)



### Scope & Description

Scout is pursuing opportunities to sell ancillaries through the travel agency channel. With NDC the process of ancillary distribution via travel agents will be simplified. In cooperation with Navitaire and Travelfusion. This pilot will focus initially on the NDC Shopping functionality which will be enabled via the Navitaire NDC Gateway. Travelfusion will act as an Aggregator and will connect travelers and OTAs to everything Scout can offer such as additional luggage options, pre-ordered gourmet meals and more.

During a first phase the pilot scope will address making Scout ancillary products available for Travelfusion and then extend the offerings via Travelfusion Online Travel Agents. The first project phase will focus on Baggage and Meals. Payment and ticketing is not covered under the scope of this project and will be facilitated using existing methods.

### Participants

- ▼ **Navitaire:** PSS Provider
- ▼ **Travelfusion:** Aggregator

### NDC Schema

NDC 1.1.3

- ▼ AirShoppingRQ/RS, BaggageAllowanceRQ/RS, FareRulesRQ/RS, FileRetrieveRQ/FileListRS, FlightPriceRQ/RS

### Pilot Comments

- ▼ Exploratory approach to NDC; NDC has been new ground to pilot partners with valuable learnings derived from the project.
- ▼ NDC messages allow more flexibility compared to other standards.

### Live Status

- ▼ The pilot is scheduled to go live in the 1Q2016
- ▼ Coming next: Scout to extend NDC Gateway distribution to more online travel agents

### Benefits for the Aggregator and Agents

- ▼ Unlock cost and simplification benefits of NDC Industry standard in terms of standardized connectivity to Scout and future carriers
- ▼ Provide access to additional Scout products for travelers
- ▼ Become one-stop shop for travel requirements



# Qantas Airways Limited (QF)



## Scope & Description

In cooperation with Helloworld, an Australia-based industry partner, Qantas is piloting the NDC Offer and Order management schemas for the distribution of their Qantas Chauffeur Drive product in a third-party channel environment.

## Participants

- ▶ **Helloworld:** Distributor
- ▶ Selected Travel Agents connected through Helloworld

## NDC Schema

NDC 1.1.3

- ▶ AirShoppingRQ/RS, FlightPriceRQ/RS, ServiceListRQ/RS, OrderCreateRQ/RS, OrderViewRS, OrderRetrieveRQ, OrderCancelRQ/RS, OrderListRetrieveRQ, OrderListRS, OrderCancelRQ/RS

## Pilot Comments

- ▶ Early data mapping against schemas is critical
- ▶ A clear understanding between partners, both commercial and technical, is critical
- ▶ A clearly defined scope is critical
- ▶ The schemas are complex but not difficult to understand - the effort is in developing an understanding between distribution partners on how best to apply them to deliver the Use Cases.

## Live Status

- ▶ The pilot is scheduled to go live in the 1Q2016
- ▶ Coming next: Working on broader distribution plan

## Benefits for the Agents

- ▶ Productivity gain – reduces a 2-step process of GDS for flight and qantas.com for Chauffeur Drive, with a single agent process.
- ▶ Ancillary guarantee - the Offer of the Chauffeur Drive is guaranteed by Qantas as business rules are validated before the Offer is made.
- ▶ Single view of the customer's order at POS– Qantas holds the single source of truth of the Chauffeur Drive status and irrespective of servicing channel (NDC or Qantas direct channels, voluntary or involuntary) the agent can “lookup” the current status of the product allowing the agent to refresh their customer documentation
- ▶ The pilot has delivered NDC learnings that will be applied to future commercial and technical strategies



## The Americas



## InselAir (7I)



### Scope & Description:

InselAir is participating in a pilot of the NDC offer/order processes in conjunction with IT partners JR Technologies and SITA. The initial phase of the pilot centered on the order fulfilment of tickets with both bundled and unbundled ancillary merchandizing utilizing JR Technology's NDC gateway, NDC merchandizing engine, and end user interfaces for corporate and non-BSP travel agent sales channels. The scope will expand in the future to direct channels, payment processing, online travel agents, interline connectivity, and DCS once additional relevant schemas are published.

### Participants:

- ▼ **InselAir Aruba:** Interline Carrier (future deployment pending standard publication)
- ▼ **SITA:** IT partner (general project support, no development)
- ▼ **JR Technologies:** NDC IT partner
- ▼ InselAir affiliated TMC

### NDC Schema:

NDC 15.2

- ▼ AirDocDisplayRS, AirDocExchangeRQ, AirDocIssueRQ, AirDocRefundRQ/RS, AirDocVoidRQ/RS, AirlineProfileRQ/RS, AirShoppingRQ/RS, CustomInputRQ, FareRulesRQ/RS, FlightPriceRQ/RS, ItinReshopRQ/RS, OrderCancelRQ/RS, OrderChangeRQ, OrderNotifRQ, OrderRetrieveRQ, OrderRulesRQ/RS, OrderViewRS, SeatAvailabilityRQ/RS, ServiceListRQ/RS, ServicePriceRQ/RS, OrderCreateRQ

### Pilot Comments:

InselAir is running NDC version 15.2 and is planning to upgrade to version 16.1 once published. InselAir is planning on taking end-to-end NDC connectivity into full scale production by Q3 2016, including bringing BSP settlements in scope using the IATA Weblink and ARC ADC products. Dynamic pricing for non-air products will be utilized in Q2 2016 to allow for real time revenue management of ancillary products.

### Live Status:

- ▼ The pilot has been live since the end of December 2015
- ▼ Coming next: Order Management and Merchandizing engines will be running in March 2016. Once development is complete for InselAir, the process will be repeated for InselAir Aruba so that the future interline NDC communication schemas can be implemented on an NDC-to-NDC basis. InselAir is looking forward to being the first airline ready to implement the interline schemas in Q2 2016.

### Benefits for the Agents:

- ▼ Agents connecting to InselAir via NDC will benefit by taking advantage of the NDC dynamically priced offers as opposed to the static priced offers available through other channels.



# GOL Linhas Aéreas (G3)



## Scope & Description:

In cooperation with the TMC Flytour and the consolidator Rextur-Advance, both based in Brazil, Gol Linhas Aéreas Inteligentes has embarked on a NDC pilot with its Passenger Services System Provider, Navitaire. The project focused on NDC Shopping.

## Participants:

- ▶ **Navitaire:** PSS provider
- ▶ **Flytour:** TMC
- ▶ **Rextur-Advance:** Travel Agent
- ▶ **Reserve:** System Developer Aggregator

## NDC Schema:

NDC 1.1.3

- ▶ AirShoppingRQ/RS, FareRulesRQ/RS, FlightPriceRQ/RS, FileRetrieveRQ/RS, OrderCreateRQ, OrderViewRS

## Pilot Comments:

- ▶ Navitaire has completed development of Phase 1 of the New Skies NDC Gateway Service.
- ▶ Two agencies (Rextur-Advance and Flytour) and one system developer aggregator (Reserve) have confirmed connectivity to the NDC Gateway Service.
- ▶ Agency development of NDC messages is in-progress. Agency development of NDC messages AirShoppingRQ/RS, FlightPriceRQ/RS, FareRulesRQ/RS and OrderCreateRQ, OrderViewRS have been completed with Rextur-Advance and additional transactional processing is in the planning phase.
- ▶ Some of the benefits for Navitaire are the expanded options for direct connections offered to airline customers using industry standard schemas for shopping and the support of Navitaire clients' desire to distribute ancillary products in a direct manner without the need for a separate fulfillment document.

## Live Status:

- ▶ The pilot has been live since the end of December 2015 with Rextur-Advance
- ▶ Coming next: Players are preparing for NDC certification. Flytour and other agents are expected to be live in 1Q 2016.

## Benefits for the Agents:

- ▶ GOL NDC provides the travel agents with an open standard platform of integration based on XML messaging to make possible the distribution of rich airline contents, ancillaries and special services requirements to offer to their customers.



## American Airlines (AA)



### Scope & Description

American Airlines participated in a pilot of the NDC offer/order processes in conjunction with IT partners Reserve and Farelogix. The initial phase of the pilot centered on the order fulfillment of tickets with ancillary merchandizing utilizing Reserve NDC gateway, NDC merchandizing engine, and end user interfaces for BSP travel agent sales channels.

### Participants

- ▼ **Reserve:** NDC IT partner
- ▼ **Farelogix:** IT partner (general project support, no development)
- ▼ **Copastur:** Travel Agent

### NDC Schema

NDC 1.1.0

- ▼ AirShoppingRQ/RS, ServiceListRQ/RS

NDC 1.1.3

- ▼ FareRulesRQ/RS, FlightPriceRQ/RS, ItinReshopRQ/RS, SeatAvailabilityRQ/RS, ServicePriceRQ/RS

### Pilot Comments

- ▼ This pilot is a pioneering initiative because it resulted in the first Latin American travel agency to issue a ticket using NDC Schemas as a technological platform, and the first American travel agency to use NDC Schema 1.1.3.

### Live Status

- ▼ The pilot has been live since December 2015
- ▼ Coming next: The next phase enables the Travel Manager and Corporate Booking Tools to control, manage and compare flights with other Airlines, even if they do not use NDC through the use of an NDC Translator.

### Benefits for the Agents

- ▼ Agency will connect to American's content through NDC technology that provides flexibility and enables the distribution of more consumer options.
- ▼ Through American's NDC solution, agency will have access to (i) new types of content, (ii) optional service like Paid Seats, and (iii) future products and services for which travel agency distribution is made possible by NDC.



**North Asia**



# Air China (CA)



## Scope & Description

In cooperation with TravelSky, Air China piloted the NDC schemas (Shopping and Order Management) for the distribution of selected ancillary services. Referred to as 'Phoenix Dances', the pilot went live in November 2015.

## Participants

- ▼ **TravelSky Technology Limited:** IT Provider
- ▼ **China Air Service:** Travel Agent

## NDC Schema

NDC 1.1.3

- ▼ AirShoppingRQ/RS, FlightPriceRQ/RS, BaggageAllowanceRQ/RS, BaggageChargesRQ/RS, OrderCreateRQ, OrderViewRS, AirDocIssueRQ, AirDocDisplayRS

## Pilot Comments

- ▼ Air China is able to produce live transactions based on NDC 1.1.3 in end-to-end (servicing excluded) TKT sales process through TravelSky's CDP\* platform

## Live Status

- ▼ The pilot has been live since Mid-November 2015
- ▼ Coming next: Adding sales of prepaid baggage ancillary product into the process and connecting with third-party agents' systems. Upgrade to NDC 15.2.

## Benefits for the Agents

- ▼ Through TravelSky's CDP\* platform agents without IT capability and SME\*\* agents will have the chance to sell the airlines' products using a central platform based on NDC messaging.
- ▼ Transparency for all the stakeholders.
- ▼ They will be able to easily receive rich content and sell air insurance kind of ancillaries on both PC and frontends.
- ▼ At the end of the pilot, there will be more than 5000 agents using the platform on a daily basis that will benefit from NDC without making any additional entry investment.

\*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents

\*\*SME = Small and Medium Enterprise



# Shandong Airlines (SC)



## Scope & Description

In cooperation with TravelSky, in 2014 Shandong Airlines piloted the Shopping schemas in order to validate that the schemas support the successful sale of the aviation insurance ancillary sold through the local retail agent, Qingdao Huajun Air Service. In 2015, the airline expanded the scope to include Order Management schemas and to test the capability of NDC to sell ancillary services.

## Participants

- ▼ **TravelSky Technology Limited:** IT Provider
- ▼ **Qingdao Huajun Air Service:** Travel Agent

## NDC Schema

NDC 1.1.3

- ▼ AirShoppingRQ/RS, FlightPriceRQ/RS, BaggageAllowanceRQ/RS, BaggageChargesRQ/RS, OrderCreateRQ, OrderViewRS, AirDocIssueRQ, AirDocDisplayRS

## Pilot Comments

- ▼ Shandong Airlines is able to produce live transactions based on NDC 1.1.3 in end-to-end (servicing excluded) TKT sales process through TravelSky's CDP\* platform

## Live Status

- ▼ The pilot has been live since Mid-November 2015
- ▼ Coming next: Adding sales of ancillary products and connecting with third-party agents' systems. Evaluate possible upgrade to NDC 15.2.

## Benefits for the Agents

- ▼ Through TravelSky's CDP\* platform agents without IT capability and SME\*\* agents will have the chance to sell the airlines' products using a central platform based on NDC messaging.
- ▼ Transparency for all the stakeholders.
- ▼ They will be able to easily receive rich content and sell air insurance kind of ancillaries on both PC and frontends.
- ▼ At the end of the pilot, there will be more than 5000 agents using the platform on a daily basis that will benefit from NDC without making any additional entry investment.

\*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents

\*\*SME = Small and Medium Enterprise



# Hainan Airlines (HU)



## Scope & Description

In cooperation with CTBA and TravelSky, in 2014 Hainan Airlines piloted the Shopping schemas in order to validate that the schemas support the distribution of their domestic air products through local travel agencies. In 2015 the airline expanded the scope of their pilot to include the Order Management schemas in order to simulate an end-to-end transaction, and to further test their capability to distribute more rich content to CTBA.

## Participants

- ▶ **TravelSky Technology Limited:** IT Provider
- ▶ **CTBA:** Travel Agent

## NDC Schema

NDC 1.1.3

- ▶ AirShoppingRQ/RS, FlightPriceRQ/RS, OrderCreateRQ, OrderViewRS, AirDocIssueRQ, AirDocDisplayRS

## Pilot Comments

- ▶ The airline is live with NDC 1.1.3, being able to send air TKT in indirect channel through TravelSky's CDP platform by the selected agent. End-to-end implementation without Servicing.

## Live Status

- ▶ The pilot has been live since Mid-November 2015

## Benefits for the Agents

- ▶ Through TravelSky's CDP\* platform agents without IT capability and SME\*\* agents will have the chance to sell the airlines' products using a central platform based on NDC messaging.
- ▶ Transparency for all the stakeholders.
- ▶ They will be able to easily receive rich content and sell air insurance kind of ancillaries on both PC and frontends.
- ▶ At the end of the pilot, there will be more than 5000 agents using the platform on a daily basis that will benefit from NDC without making any additional entry investment.

\*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents

\*\*SME = Small and Medium Enterprise



# China Southern Airlines (CZ)



## Scope & Description

In cooperation with Ctrip, China Southern Airlines piloted the NDC schemas (Shopping and Order Management) for the distribution of air tickets. Referred to as Sunshine phase 2, the pilot went live in November 2015.

## Participants

- ▼ **Ctrip:** Travel Agent

## NDC Schema

NDC 1.1.3

- ▼ AirShoppingRQ/RS, FlightPriceRQ/RS, OrderCreateRQ, OrderViewRS, AirDocIssueRQ, AirDocDisplayRS

## Pilot Comments

- ▼ China Southern Airlines is able to produce live transactions based on NDC 1.1.3 in end-to-end (servicing excluded) TKT sales process via Ctrip, the OTA's web frontend.

## Live Status

- ▼ The pilot has been live since the end of November 2015
- ▼ Coming next: Continue testing integration with Travelsky and Ctrip to test scenarios of air ticket sales via an aggregator. Evaluate possible upgrade to NDC 15.2.

## Benefits for the Agents

- ▼ NDC, as an open standard, facilitates system integration between OTAs and airlines.
- ▼ Thru NDC transactions, rich product information and contents with flexible data formats can be displayed, thus more can be sold and upsold.
- ▼ The standard shortens the agents' development cycle. The time-to-market is much faster and the system scalability and flexibility are enhanced.

