New Distribution Capability (NDC)
Together Let’s Build Airline Retailing

2016 NDC Deployments Report
January 2017
Author: Valerie Courtas, Manager NDC Implementation
Executive Summary

2016 was a very successful year for the NDC program with numerous deployments taking place around the globe. The original target of 20 cumulative live airlines was exceeded early during the year and we count today 27 NDC live deployments. NDC has now become mainstream and at this writing 86 airlines have confirmed plans to implement NDC in the near future.

What were the highlights in 2016?
- 27 airlines delivered live transactions: BA, QR, RG, 7I, G3, AA, CA, SC, HU, CZ, OA, I2, BE, DE, EK, HK, ZH, MF, S7, EI, HQ, MT, LH, IB, RY, FZ, MU
- 38 system providers went through the NDC certification process: 31 IT providers and 7 aggregators (incl. 4 start ups)
- 5 new case studies were delivered: LH, G3, 7I, Travelsky, BE
- First transactions were issued and reported to the IATA Billing and Settlement Plan (BSP) via NDCLink
- First deployment involving a corporate buyer and a Travel Management Company (TMC): BE
- 4 Airlines upgraded their certification level: BA, CA, SC, HU
- First live deployments using the latest version of the NDC schemas PADIS Publication 16.2 released last September: FZ, MU

What were the major findings?
- Offer and order management coverage continues to increase: 74% of airlines have implemented both offer and order management functionalities
- NDC is about more than just post-booking ancillaries: 70% of airlines are using the schemas to sell both flights and ancillaries (bundled and unbundled)
- NDC schemas are fit for purpose, 4 airlines migrated from a previous version of the standard and 2 started directly on PADIS version 16.2
- Rich content is increasingly being deployed, whereas personalization and dynamic pricing have just started to be implemented by a small number of airlines
- The main areas identified by airlines as requiring improvement are the ambiguity in the schema (already being addressed in version PADIS 17.1), connecting to cache-based solutions, connecting to legacy systems and finding partners

What’s next for 2017?
The focus for new deployments will be increasingly on both offer and order management, interline transactions in production environment and helping airlines to adopt the newest version of the NDC schemas. IATA will additionally concentrate on securing the end-to-end NDC process by deploying the Secure Tokens platform that will enable data security, identity management and propagation of IATA travel agents accreditation status. IATA, upon airlines’ consent, is also preparing to collect and report on the number of NDC live transactions.
Introduction

New Distribution Capability (NDC) enables the travel industry to transform the way airline 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.

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 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). The findings are being used by the PDMG WG to continuously validate and enhance NDC business requirements and the related schemas.

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 different expectations from the NDC standard. Since 2015, NDC has moved from pilot to implementation phase, which is the reason why this report will concentrate exclusively on the airlines that have deployed NDC in a live environment, with transactions in production. At the time of the report 27 airlines have implemented NDC in a live environment. This new version will focus on giving update on the deployments that started in 2015 and how they have evolved through time as well as on the new entrants that joined in 2016.

The document is divided into 4 sections:

1. **Who is implementing NDC?** This section introduces the different actors deploying NDC.
2. **What was deployed in 2016?** This section presents key figures of the 2015 and 2016 deployments.
3. **What were the major findings?** This section gives a summary of the main findings and areas of improvement identified by implementers.
4. **What is coming next?** This section gives insights into the deployment focus for 2017.

And appendices which feature the details for each of the individual airline deployments since 2015 and some graphical information about NDC messages and use cases coverage.

**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 31st December 2016.

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1 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 NDC deployments in 2015 and 2016.

Overview of NDC Deployments:

At the time of the report we can publicly share details of 27 NDC deployments. In 2015, 11 airlines had already deployed NDC successfully and in 2016 we recorded an increase in the number of deployments with an additional 16 airlines becoming live. Deploying NDC successfully in production means that passengers were able to complete a booking through a travel agent using the NDC standard (minimum version of NDC Schema 1.1.*).

The map displayed below shows an overview of all the deployments as of December 2016. The deployments are shown by region and by scope of deployment. Geographically we can see great momentum in the Europe and North Asia regions in which around 75% of NDC deployments are taking place. The Americas and Africa and Middle East regions are following with respectively 3 and 4 deployments. The Asia Pacific region is progressing more slowly with pilots taking place with 2 airlines in 2016 which are expected to go live in 2017.
NDC Deployments (>=1.1 only)

NDC - Supply and Demand:

Since June 2016, all NDC entities have been displayed in the NDC Registry at www.iata.org/ndc-registry. This registry contains all NDC actors that went through the NDC Certification program. The purpose of the NDC Certification Program is to confirm the scope and level of a particular entity’s capability to receive and send NDC messages. The program validates that the structure of the applicant’s NDC messages accurately follows the relevant version of the applicable NDC schemas. Any airline that deploys an NDC API or any travel agent or aggregator that consumes these APIs can become NDC certified. Any IT provider that offers NDC products and services for airlines and distributors can become NDC capable.

The table below shows a matrix of all the entities that supply or request NDC content and how they interact with each other. This is not an exhaustive list of all travel agents connected to airlines’ APIs but it gives a good picture of the overall ecosystem of NDC and the different players willing to embark on an NDC journey with one or more airlines. It is also to be noted that aggregators can be connected to many travel agents that are not displayed as such in this table simply because they do not need to be certified.
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<th>Schema version</th>
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<th>Travelport*</th>
<th>Skyscanner Ltd*</th>
<th>Kayak</th>
<th>KML Travelgate*</th>
<th>TP Connect*</th>
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<th>Thomas Cook (Group)</th>
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<th>Logitravel Group*</th>
<th>Web Booking Ltd</th>
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<th>Travelport*</th>
<th>Ctrip.com</th>
<th>ChinaAir Service*</th>
<th>Shanghai Airlines Tours International</th>
<th>Recor Advance®</th>
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* NDC Certified or in progress of being certified
TA = Travel Agents
System Providers:

To date 38 system providers have completed the NDC certification process and implemented solutions using the NDC Standard. Of those 38 entities, we count 31 IT providers and 7 aggregators. The landscape of system providers is diverse and composed of legacy players and new entrants including 4 start-ups.

List of NDC certified and capable system providers as of 31st December 2016:

<table>
<thead>
<tr>
<th>Name</th>
<th>Company Type</th>
<th>Certification Level</th>
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<td>IT Provider</td>
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<td>IT Provider</td>
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<td>Blind Destination</td>
</tr>
<tr>
<td>Datalex</td>
<td>IT Provider</td>
<td>3</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Farelogix, Inc.</td>
<td>IT Provider</td>
<td>3</td>
<td>Farelogix Airline Commerce Gateway</td>
</tr>
<tr>
<td>Flyiin**</td>
<td>Aggregator</td>
<td>2</td>
<td>NDC Gateway</td>
</tr>
<tr>
<td>Forever Flying</td>
<td>IT Provider</td>
<td>3</td>
<td>not applicable</td>
</tr>
<tr>
<td>Hewlett Packard Enterprise</td>
<td>IT Provider</td>
<td>3</td>
<td>HPE NDC Adapter</td>
</tr>
<tr>
<td>Hitit Computer Services</td>
<td>IT Provider</td>
<td>3</td>
<td>Crane</td>
</tr>
<tr>
<td>IBS Software Services Private Limited</td>
<td>IT Provider</td>
<td>3</td>
<td>iFly Res - The New Generation Passenger Services System</td>
</tr>
<tr>
<td>Indra Sistemas S.A.</td>
<td>IT Provider</td>
<td>3</td>
<td>SUITAIR IBE</td>
</tr>
<tr>
<td>Information Systems Associates FZE</td>
<td>IT Provider</td>
<td>3</td>
<td>AccelAero</td>
</tr>
<tr>
<td>JR Technologies</td>
<td>IT Provider</td>
<td>3</td>
<td>JR Technologies NDC Platform</td>
</tr>
<tr>
<td>Maureva Ltd</td>
<td>IT Provider</td>
<td>3</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Navitaire</td>
<td>IT Provider</td>
<td>3</td>
<td>Navitaire NDC Gateway</td>
</tr>
<tr>
<td>On Travel Solutions Limited</td>
<td>IT Provider</td>
<td>3</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>OpenJaw Technologies</td>
<td>IT Provider</td>
<td>3</td>
<td>t-Retail Platform</td>
</tr>
<tr>
<td>Pribas GmbH</td>
<td>IT Provider</td>
<td>3</td>
<td>Air Broker NDC</td>
</tr>
<tr>
<td>Proavos</td>
<td>IT Provider</td>
<td>3</td>
<td>AVOS</td>
</tr>
<tr>
<td>Quadlabs Technologies Pvt Ltd</td>
<td>IT Provider</td>
<td>2</td>
<td>XChange</td>
</tr>
<tr>
<td>RedApplenet</td>
<td>IT Provider</td>
<td>3</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Reserve</td>
<td>Aggregator</td>
<td>2</td>
<td>Reserve</td>
</tr>
<tr>
<td>Sabre Airline Solutions</td>
<td>IT Provider</td>
<td>1</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
The following table shows the NDC partnerships between airlines and IT providers that have deployed in a live environment in 2015 and 2016:

<table>
<thead>
<tr>
<th>Name</th>
<th>NDC Airlines Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPConnects</td>
<td>Rotana Jet Aviation; flydubai</td>
</tr>
<tr>
<td>Farelogix, Inc.</td>
<td>Qatar Airways; American Airlines; Emirates Airline; Lufthansa; Olympic Air</td>
</tr>
<tr>
<td>Indra Sistemas S.A.</td>
<td>Iberia Express</td>
</tr>
<tr>
<td>JR Technologies</td>
<td>InselAir</td>
</tr>
<tr>
<td>On Travel Solutions Limited</td>
<td>S7 Airlines</td>
</tr>
<tr>
<td>Pribas GmbH</td>
<td>Condor; Thomas Cook Airlines Limited of Manchester; Thomas Cook Airlines Belgium</td>
</tr>
<tr>
<td>Hewlett Packard Enterprise</td>
<td>Flybe</td>
</tr>
<tr>
<td>Travelsky</td>
<td>Air China; Shandong Airlines; Hainan Airlines; Shenzhen Airlines; Hong Kong Airlines; Xiamen Airlines</td>
</tr>
<tr>
<td>Navitaire</td>
<td>Gol Linhas Aereas Inteligentes</td>
</tr>
<tr>
<td>Shanghai Aqueduct Information Technology Co., Ltd</td>
<td>China Eastern Airlines</td>
</tr>
<tr>
<td>Quadlabs Technologies Pvt Ltd</td>
<td>British Airways</td>
</tr>
<tr>
<td>RedApplenet</td>
<td>Jiangxi Air</td>
</tr>
</tbody>
</table>
2. What was deployed in 2016?

In 2016 we have seen various deployment patterns. The airlines’ success stories are being documented in case studies that are available online at www.iata.org/ndc under the Info tab. Ten entities have already shared their implementation journey and lessons learned. You will find as well in appendix A of this document, one pagers for each of the 27 NDC live airlines explaining the strategy, benefits and scope of their implementation.

This chapter summarizes the main key findings at an aggregated level.

Scope of deployments

Figure 1 and 2 depict the scope of deployments of airlines with respect to two areas:

- The coverage of the NDC messages in 3 levels aligned to the NDC certification: post booking ancillaries, offer management and 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 shopping requests for an airline’s products and services (including creating PNR or orders and processing payment). 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.

- The extent to which the NDC messages are being used to offer the airlines’ products and services: ancillaries only, flights only or both flights and ancillaries.

*Figure 1: Functionalities deployed (% of airlines)*
Figure 2: Scope of deployment (% of airlines)

- Ancillaries only: 7%
- Flights & ancillaries: 26%
- Flights only: 67%

Schema version

Figure 3 shows the different versions of the schemas that have been certified in 2016.

Figure 3: Schema versions deployed (% of airlines)

- NDC 1.1.3: 4%
- PADIS 15.2: 50%
- PADIS 16.2: 38%
- PADIS 16.1: 8%
Ancillaries and Rich Content

Figures 4 and 5 display the type of ancillaries deployed by airlines in 2016 and the extent to which the NDC schema is used to push out rich content.

**Figure 4: Ancillaries deployed by airlines in 2016**

<table>
<thead>
<tr>
<th>Type of Ancillaries</th>
<th>Airlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Related</td>
<td></td>
</tr>
<tr>
<td>Seats</td>
<td>EI, CA, AA, BA, DE, BE, FZ, G3, IB, I2, S7, SC, MT, HQ</td>
</tr>
<tr>
<td>Baggage related</td>
<td>EI, CA, BA, DE, BE, FZ, G3, IB, I2, LH, OA, QR, S7, SC, MT, HQ</td>
</tr>
<tr>
<td>Change Fees</td>
<td>IB</td>
</tr>
<tr>
<td>Other Products</td>
<td></td>
</tr>
<tr>
<td>Travel Insurance</td>
<td>G3, SC</td>
</tr>
<tr>
<td>Car services</td>
<td>G3, SC</td>
</tr>
<tr>
<td>Meals</td>
<td>BA, DE, FZ, G3, HQ, MT</td>
</tr>
<tr>
<td>Wi-Fi</td>
<td>RG</td>
</tr>
<tr>
<td>Lounge Access</td>
<td>EI, LH</td>
</tr>
<tr>
<td>Special Services (Wheel Chair, Meet and Assist)</td>
<td>RG, IB</td>
</tr>
<tr>
<td>Duty Free</td>
<td>RG</td>
</tr>
</tbody>
</table>

**Figure 5: Rich content coverage (% of airlines)**

- 27 Live Airlines
- 48% Pending confirmation
- 7% Not in use
- 44% Rich content
3. What were the major findings?

This section concentrates on the learnings that have been identified after analyzing the data and information shared by the participants. This material is critical in order for IATA 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.

Scope of NDC deployments

More and more airlines are implementing the full set of NDC messages with both offer and order management messages and functionalities. Indeed, 74% of airlines have deployed an offer and order management functionality in 2016 (see figure 1 on previous section). Compared to 2015, 4 airlines have enhanced their NDC capabilities from just offer management to both offer and order management (British Airways, Air China, Shandong Airlines and Hainan Airlines). The remaining airlines (16) have implemented all functionalities of the standard from the very beginning.

In terms of usage of the NDC standard, around 70% of airlines are using the NDC messages to push content about both flights and ancillaries whereas 7% of airlines distribute only ancillaries using the NDC messages (see figure 2 in previous section). A majority of airlines offer ancillaries both a la carte or bundled with a flight, allowing them to generate additional revenue and to offer products and services according to their marketing strategy. While seats and baggage remain the most popular ancillaries deployed, more and more carriers are using NDC messages to offer other products to their customers such as insurance, car services, lounge access, Wi-Fi, meals, duty free and special services such as wheelchair and Meet and Assist (see figure 4 on previous section).

Rich content is being pushed by more than 48% of airlines in the form of images and videos, allowing them to display comprehensive content and therefore differentiate their products from their competitors (see figure 5 on previous section). However, personalization and dynamic pricing remain for the moment used by a small number of airlines. IATA expects these two areas to grow in the near future.

It is now becoming clear that carriers embracing NDC have a much broader vision of the business benefits and are embarking upon much more complex NDC projects. By building an offer and order management system, they are putting in place the framework to get full NDC benefits.

NDC Schemas

The extent of the deployments in 2016 have demonstrated once again that the NDC schema is fit for purpose and that the newest version released meets airlines’ requirements. In 2016, 4 airlines (British Airways, Air China, Shandong Airlines and Hainan Airlines) migrated from a previous version of the schema and 2 airlines started directly on the latest version of the schema just released in September 2016 (version PADIS 16.2).
Airlines are also starting to use the Airline Profile messages, implying that more and more airlines are expecting high volumes of transactions in a near future (see appendix B at the end of the document).

While IATA was expecting to see the first live transactions in an interline scenario in 2016, this was not the case even though some airlines have been working very hard to implement these messages in a live environment. The first results and feedback are expected to be available early 2017. Interline capability was only recently made available, which explains the delayed implementation. The same applies for some complex use cases such as group bookings, dynamic bundle, conditional changes, etc., which have not been deployed by the carriers yet (see appendix C at the end of the document), but should become available as the deployments mature.

Some NDC implementers have highlighted that there is some ambiguity in the structure and elements of the schemas and that the messages need more extended attributes. As one of our implementer summarizes: “The NDC schema still allows for a lot of ambiguity when it comes to deciding if, when and where to put certain information. This is good and bad at the same time as it gives the Suppliers the flexibility to describe their business model and offering but on the other hand it will increase the integration effort spent by Agents and that of Suppliers willing to do interlining.”

This feedback has been addressed for both offer and order messages. Where there used to be various possibilities to implement the same message, these have been reduced and converged into one single interpretation of the schema. These changes will be available in version PADIS 17.1 of the NDC schema that will be released early March 2017 and IATA encourages all participants to move to this new version of the schema.

**Different strategies, Different timelines**

Airlines are seeing more and more the benefits of NDC as it becomes part of their distribution strategy. They can now articulate clearly what has changed after the implementation of their NDC API as described in the detailed one pager in appendix A of this document.

Among the different deployments we can identify the following main categories:

- **NDC APIs “Open to all”:** Airlines that decided to provide access to their API via their webpage where any travel agent, aggregator can register and find the specific technical requirements of their NDC API: British Airways, Emirates.

- **Developing direct connects:** Airlines that focused their deployment on connecting directly with one or more specific travel agents: Lufthansa with L’Tur, Aer Lingus with Club Travel, Olympic Air with some selected Greek Travel Agents; China Southern Airlines with Ctrip, etc.…

- **Using aggregators to distribute content:** Airlines that partnered with an aggregator to distribute their content more broadly to a number of travel agents already connected: Iberia and Flybe with Travelfusion, British Airways with Travelfusion, Kayak and Skyscanner; Iberia Express with XML Travelgate; American Airlines and Gol with Reserve; Rotana Jet and flydubai with TPConnects.

- **Business Travel focus:** Airlines that support business travel through booking tools and/or corporate fares pushed through their NDC API: Flybe, Aer Lingus, British Airways.
Each airline has its own specific commercial and distribution strategy and has different expectations from the NDC Standard. That is the reason why we can observe multiple paths to NDC deployments. Some deployments are also more mature than others having started already in 2015 or even earlier during the NDC pilot phase. Based on our observations of past deployments, airlines are likely to opt for limited implementation to evaluate market behavior and agency response before adopting a full scale implementation. Early adopters have found ways to work with key vendors to implement pieces or the full scope of NDC Standard. We have observed that some low cost carriers (LCCs) are more likely to adopt NDC principles sooner due to their lack of dependencies on industry infrastructures.

**Some areas of improvement identified by the airlines**

The airlines that have shared their findings with IATA have mentioned 3 main areas of improvement that should facilitate the adoption of NDC in the future:

- **Connecting to existing systems:** connecting NDC-enabled systems to legacy systems such as passenger service systems (PSS) also requires extensive work and close collaboration between various departments to bring together the relevant knowledge.

- **Finding partners:** airlines need travel agents, Travel Management Companies, Online Travel Agents and corporate partners to make NDC happen. Choosing partners is not necessarily straightforward when dealing with a project that not only covers new technological ground but also has a fundamental effect on the airline industry distribution model. As much as possible IATA will continue engaging with the travel agent community by the means of webinars and by facilitating matchmaking between airlines, travel agents and aggregators that are already NDC certified.

- **Connecting to cache-based solutions:** the main concept of NDC to have a real-time, transaction-based offer process does not easily link to the cache-based solutions that are widely used especially in the European tour operator business. Cached availability of airfares does not support airlines’ dynamic strategies. We expect system providers to work in the future on new functionalities to satisfy these modern shopping needs.
4. What is coming next?

The NDC strategy in 2017 will evolve around the following three pillars:

- **Standards**: Evolution of the Standard through twice-yearly releases.

- **Technology and Innovation**: Support airline/partner implementations and foster innovation through IATA-led Hackathons while developing solutions and challenges launched through the NDC Developer Portal (http://ndc.developer.iata.org/).

- **Engagement**: Facilitate the dialogue among members of the airline indirect value chain through various forums such as the IATA Business Travel Summit (http://ndcbiztravel.iata.org/) and industry meetings.

In 2017, IATA’s main priority will continue to be NDC adoption by airlines. The program has also seen strong traction from IT providers delivering NDC capable solutions which should accelerate the overall process. The engagement with travel agents and the corporate buyer community both in Europe and North America in particular will also be intensified.

The focus for new deployments will be on increasing the number of offer and order management deployments, deploying interline transactions in a production environment and helping airlines to adopt the newest version of the NDC schema version, PADIS 17.1 that will be released in March 2017.

IATA will additionally concentrate on securing the end-to-end NDC process by deploying the Secure Tokens platform that will enable data security, identity management and propagation of IATA travel agents' accreditation status. As we enter 2017, IATA is also preparing to collect and report on the number of NDC live transactions upon airlines’ consent.

As much as possible, IATA will continue to capture the different deployment paths and the opportunities for improvement and benefits encountered. Case studies and various support materials will be made available on iata.org/ndc, to help support NDC adoption and to help the industry understand the various deployments that are taking place.
Appendix A – 2016 NDC Deployment Details

This section is dedicated to each individual deployment in 2016 by region.

The following pilot one-pagers have been provided to IATA by the respective pilot participants and display information as of 31st December 2016.
British Airways (BA)

NDC Strategy:
- NDC API “Open to all”
- Multi-channel distribution strategy

What has changed with NDC?
“Our NDC APIs offer customers the ability to pay for their preferred seat on British Airways flights via their preferred travel partner’s website. Previously, this could only be done on ba.com. This enables more British Airways content to be available in more places which benefits both the airline and the customer.” Nicola Ping, Distribution Development Manager Selling & Distribution at British Airways

NDC Project scope:
- Message coverage: Offer and order management
- Scope: Flights and ancillaries
- Ancillaries: a la carte and bundled
- Type of Ancillaries: Air: Seats, Baggage; Non Air: Meals
- Rich content: yes
- Personalization: no
- Airline Profile: no
- Distribution channels: Direct connect through Online Travel Agents, IATA Travel agents

NDC Partners:
- Kayak: Aggregator
- Skyscanner: Aggregator
- Travelfusion: Aggregator
- A number of IATA Travel Agents: Travel Agents

Schema Version:
- NDC 1.1.3, PADIS 15.2, PADIS 16.1

Case study:
- British Airways prepared for the future!

Contact:
- https://developer.ba.com/
- selling.distribution@ba.com
NDC Live Example:

- Direct Booking on Skyscanner

Find  Select  Verify  Book

British Airways mobile web  British Airways on Skyscanner (App & Web)
New Distribution Capability (NDC)

2016 NDC Deployments Report
January 2017

British Airways.com

British Airways on Skyscanner

British Airways.com

British Airways on Skyscanner
Aer Lingus (EI)

NDC Strategy:
- Focus on Travel Management Companies
- Additional sales of ancillaries

What has changed with NDC?
In the Aer Lingus NDC Pilot, corporate customers of Club Travel can retrieve a booking made through any channel then purchase additional ancillaries. Their customers can purchase seats, additional baggage, sports equipment and lounge access. No more manual processing for post booking ancillary sales is needed, it integrates seamlessly into back office processes.

NDC Project scope:
- **Message coverage:** Post booking ancillaries
- **Scope:** Ancillaries only
- **Ancillaries:** a la carte
- **Type of Ancillaries:** Air: Seat, Baggage, Sports equipment; Non Air: Lounge Access
- **Rich content:** no
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Management Companies, Online Travel Agents

NDC Partners:
- **Club Travel:** Travel Agent

Schema Version:
- PADIS 15.2

Case study:
- Not available

Contact:
- [www.aerlingus.com](http://www.aerlingus.com)
- Rory Keane, Rory.Keane@aerlingus.com
Condor (DE), Thomas Cook Airlines
Belgium (MT), Thomas Cook Airlines
Limited of Manchester (HQ)

NDC Strategy:
- One airline inventory migration
- Digitalization
- Drive ancillary revenues
- Connect to new markets
- Lower distribution costs

What has changed with NDC?
“Condor implemented NDC to enrich the customer experience while booking flights and close the gap between direct and third-party sales possibilities. Access to better content beyond just the usual “price and availability” and additional rich media around ancillaries is enabling a higher quality sales presentation. Supporting live search via NDC for metasearchers, giving them 100% accurate responses, had a substantial impact on the conversion” Maximilian Melcher, Project & Account Manager Sales System

NDC Project scope:
- Message coverage: Offer and order management
- Scope: Flights and ancillaries
- Ancillaries: a la carte and bundled
- Type of Ancillaries: Air: Seats, Baggage ; Non Air: Meals
- Rich content: yes
- Personalization: no personalization initiatives yet
- Airline Profile: in planning, not yet implemented
- Distribution channels: OTAs, Travel Agencies, Aggregators, metasearch, Tour Operators

NDC Partners:
- Travelfusion, Multicom, Skyscanner, Kayak, Momondo and others

Schema Version:
- NDC 1.1.3

Case study:
- Not available

Contact:
- Technical Project lead: Marcus Motzkuhn, marcus.motzkuhn@condor.com
- Sales Project Lead: Maximilian Melcher, maximilian.melcher@condor.com
NDC Live Example:

Outbound Flight: Frankfurt Int. > Las Vegas

- Economy Class:
  - 1 x 23 kg hold baggage
  - 1 x 12 kg cabin baggage
  - In-flight meals included

- Premium Class:
  - Leisurer long-haul
  - 1 x 32 kg hold baggage
  - 1 x 12 kg cabin baggage
  - Premium menu & selection of drinks

- Business Class:
  - Comfortable (in-flat seats)
  - 2 x 32 kg hold baggage
  - 1 x 12 kg cabin baggage
  - Gourmet menu & specially selected wines & spirits

Taxes and charges: €118.21

Baggage & food:
- 1 x 23 kg hold baggage
- 1 x 12 kg cabin baggage
- 1 x in-flight meals included

Inbound Flight:

- Economy Class:
  - Thu, 27 October 2016
  - 12:00 Las Vegas
  - via Seattle
  - 11:50 Frankfurt Int.
- Air transportation charges:
  - Ticket Price: €35.81
  - Taxes and charges: €35.81

Baggage & food:
- Free baggage allowance
- Hand baggage: 1 x in-flight meals included

Outbound Flight:

- Economy Class:
  - Thu, 20 October 2016
  - 11:35 Frankfurt Int.
  - 14:25 Las Vegas
- Air transportation charges:
  - Ticket Price: €251.92
  - Taxes and charges: €118.07

Baggage & food:
- 1 x 23 kg hold baggage
- 1 x 12 kg cabin baggage
- 1 x in-flight meals included

Inbound Flight:

- Economy Class:
  - Thu, 27 October 2016
  - 12:00 Las Vegas
  - via Seattle
  - 11:50 Frankfurt Int.
- Air transportation charges:
  - Ticket Price: €296.18
  - Taxes and charges: €51.97

On-board service:

Meals on board:

Whether you feel like a snack or a 3-course meal, we have something delicious to satisfy your appetite.

Close
Iberia (IB)

NDC Strategy:
- Using NDC in conjunction with a number of travel partners to offer all of its direct-sold products through indirect channels
- Using aggregators to distribute content

What has changed with NDC?
With NDC, Iberia is now able to promote its products such as flights, seats and baggage, across the entire travel industry, thereby increasing revenue potential.

NDC Project scope:
- **Message coverage:** Offer and order management
- **Scope:** Flights and ancillaries
- **Ancillaries:** bundled
- **Type of Ancillaries:** Air: Seats, Baggage, Change Fees; Non Air: Special Services
- **Rich content:** no
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Agencies Direct, Aggregators

NDC Partners:
- **Autentia:** System Provider
- **Google ITA:** System Provider
- **Travelfusion:** Aggregator

Schema Version:
- PADIS 15.2 & 16.2

Case study:
- Not available

Contact:
- selling.distribution@iberia.es
Iberia Express (I2)

NDC Strategy:
- not provided

What has changed with NDC?
- not provided

NDC Project scope:
- Message coverage: Offer and order management
- Scope: Flights and ancillaries
- Ancillaries: bundled
- Type of Ancillaries: Air: Seats, Baggage; Non Air: n/a
- Rich content: no
- Personalization: no
- Airline Profile: no
- Distribution channels: Supplier Website, Travel Agencies Direct, Aggregator

NDC Partners:
- XML Travelgate: System Provider
- Indra: System Provider
- Logitravel Group: Aggregator

Schema Version:
- PADIS 15.2

Case study:
- Not available

Contact:
- not provided
NDC Live Example:

![NDC Live Example](image-url)

**Vuelos disponibles Madrid - Fuerteventura**

**Utilidades**

- Resumen
- Calendario

**Filtrar resultados**

- Escalas
  - Directo
  - 1 Escala
  - 2 Escalas
- Horarios
  - Salida Madrid (MAD)

**Vuelos seleccionados**

<table>
<thead>
<tr>
<th>Ida 11/01/2017</th>
<th>Salida</th>
<th>Llegada</th>
<th>Clase</th>
</tr>
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<tbody>
<tr>
<td>IBERIA</td>
<td>Madrid (MAD)</td>
<td>Fuerteventura (FUE)</td>
<td>Tarifa</td>
</tr>
<tr>
<td>Express</td>
<td>11:50</td>
<td>13:10</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vuelta 20/01/2017</th>
<th>Salida</th>
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<td>Fuerteventura (FUE)</td>
<td>Madrid (MAD)</td>
<td>Tarifa</td>
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<tr>
<td>Express</td>
<td>13:40</td>
<td>17:20</td>
<td></td>
</tr>
</tbody>
</table>

**Suplementos que otras agencias de viajes te añaden al final**

- Precio vueltos: 138.25 € x 1 persona
- Equipaje (cubierto por la compañía): 0 maletas
- **BARATO**: Sin suplemento tarjeta
- **BARATO**: ¡Sin gastos de Gestión!

**Selección de asientos**

Reserva tu asiento ahora y viaja más cómodo.

- Madrid (MAD) - Fuerteventura (FUE)
- Fuerteventura (FUE) - Madrid (MAD)

Por causas de fuerza mayor la aerolínea se reserva el derecho a modificar los asientos seleccionados.

** Equipaje a facturar **

Indica el número total de maletas a facturar. Facturar online es más cómodo y barato que hacerlo en el aeropuerto.

**Vuelo de Ida y Vuelta - Iberia**

- Total maletas a facturar:
  - 0 - Sin maletas
Seleciona el asiento para: Adulto 1

6 €  8 €

A B C

D E F

5

6

7

8

9

10

12

E

E

Asignar Asiento
**Lufthansa (LH)**

**NDC Strategy:**
- Preparing the road towards future state-of-the-art retailing with full dynamically-created, personalized, and channel specific offers under airline control
- Offering new services and product bundles

**What has changed with NDC?**
With its partner L’Tur and thanks to the NDC standard, Lufthansa has developed new product bundles and is testing market acceptance.

**NDC Project scope:**
- **Message coverage:** Offer management
- **Scope:** Flights and ancillaries
- **Ancillaries:** bundled
- **Type of Ancillaries:** Air: Baggage ; Non Air: Lounge Access
- **Rich content:** yes
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Agencies Direct

**NDC Partners:**
- L’Tur: Travel Agent
- Farelogix: System Provider

**Schema Version:**
- NDC 1.1.3

**Case study:**
- Lufthansa turns NDC into novel customer benefits

**Contact:**
- None provided
Olympic Air (OA)

NDC Strategy:
- Connect to online travel agencies mainly in the Greece market that use NDC schema to book OA flights
- Reduce Distribution costs

What has changed with NDC?
Travel agents now have the possibility to directly book Olympic Air’s flights and ancillaries such as baggage using NDC.

NDC Project scope:
- Message coverage: Offer management
- Scope: Flights and ancillaries
- Ancillaries: a la carte
- Type of Ancillaries: Air: Baggage; Non Air: n/a
- Rich content: no
- Personalization: no
- Airline Profile: no
- Distribution channels: Travel Agencies Direct, Online Travel Agents, Aggregators

NDC Partners:
- Farelogix: System Provider

Schema Version:
- NDC 1.1.3

Case study:
- Not available

Contact:
- Christos Komplis, Christos.komplis@olympicair.com
S7 Airlines (S7)

NDC Strategy:

- Enable travel agents to offer on their websites all additional services available on S7’s website. E.g. Extra Space Seat Service, additional baggage, etc.
- Give passengers an opportunity to cut their expenses significantly as a result of access to the whole line of fares and services of the airline.

What has changed with NDC?

“On their own websites online agents offer services of different companies and provide information on flight number, aircraft type, cabin layout, meals, and other services in their own format. NDC makes it possible to provide all flight data in the same format as on the airline’s website. For us it is important, that all our passengers could purchase air tickets easily regardless of the purchase type — through the airline’s website or agents. The new standard will eliminate situations when a passenger chose an unsuitable fare or service as a result of misunderstanding”, Ekaterina Dmitruk, S7 Group Deputy General Sales Director.

NDC Project scope:

- **Message coverage:** Offer and order management
- **Scope:** Flights and ancillaries
- **Ancillaries:** a la carte and bundled
- **Type of Ancillaries:** Air: Seats, Baggage ; Non Air: n/a
- **Rich content:** no
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Agencies Direct, Aggregators, Travel Management Companies

NDC Partners:

- **On Travel Solutions Limited:** System Provider

Schema Version:

- **PADIS 15.2**

Case study:

- Not available

Contact:

- ecommerce@s7.ru
flydubai (FZ)

**NDC Strategy:**

- Enabling travel agents to have access to the same rich content available on flydubai’s website
- Demonstrates flydubai’s commitment to providing their third party travel agents with up-to-date information, enabling them to offer the best value and deals for flydubai

**What has changed with NDC?**

Agencies and their travelers will be able to search and book flights based on traveler’s preferences, from a fare that offers just a “seat and seatbelt” to a more comprehensive experience that includes multiple amenities and services. Business travelers using a TMC will be able to see their negotiated fares and any benefits negotiated between their employers and their preferred carriers.

**NDC Project scope:**

- **Message coverage:** Offer and order management
- **Scope:** Flights and ancillaries
- **Ancillaries:** a la carte and bundled
- **Type of Ancillaries:** Air: Seats, Baggage ; Non Air: Meals
- **Rich content:** yes
- **Personalization:** yes
- **Airline Profile:** yes
- **Distribution channels:** Online Travel Agents, Travel Agencies

**NDC Partners:**

- **TPConnects:** System Provider and Aggregator
- **Zeeyarah.com:** Travel Agent
- **Superior Tracks Travel & Tourism:** Travel Agent

**Schema Version:**

- **PADIS 16.2**

**Case study:**

- Not available

**Contact:**

- IT Business Support Manager – (RES) : Krisna Mohan Pawan, krisna.Mohanan@flydubai.com
Qatar Airways (QR)

NDC Strategy:
- Enhancing the capability of communications between airlines, travel agents and intermediaries
- Providing all users with a richer, personalized and dynamic interface to showcase their products

What has changed with NDC?

“With NDC, for the first time agencies can see actual products that they will be buying through the rich media content without using a GDS, and shopping experience is similar to our website.” Hugh Dunleavy, Chief Commercial Officer at Qatar Airways

Customers can see the actual product that they will be buying through the rich media. The fare family structure provides complete clarity on what is being purchased and how the offer differs as the customer moves from one fare brand to another. Though the same functionality is also present on the airline’s website, this is not a GDS Offering at present time and hence an important component of the NDC platform.

NDC Project scope:
- **Message coverage:** Offer management
- **Scope:** Flights and ancillaries
- **Ancillaries:** a la carte
- **Type of Ancillaries:** Air: Baggage ; Non Air: n/a
- **Rich content:** yes
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Agencies Direct

NDC Partners:
- **Farelogix:** System Provider

Schema Version:
- **NDC 1.1.3**

Case study:
- **not available**

Contact:
- Farrukh Shahzad, fshahzad@qatarairways.com.qa
NDC Live Example:

[Image of Qatar Airways fare search interface]

[Image of Qatar Airways seat availability interface]
Rotana Jet Aviation (RG)

NDC Strategy:
- Not provided

What has changed with NDC?
- Not provided

NDC Project scope:
- **Message coverage:** Offer and order management
- **Scope:** Flights and ancillaries
- **Ancillaries:** bundled and a la carte
- **Type of Ancillaries:** Air: n/a; Non Air: Wi-Fi, Special Services, Duty Free
- **Rich content:** no
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Agencies Direct, Aggregator

NDC Partners:
- **TPConnects:** System Provider
- **TPConnects:** Aggregator

Schema Version:
- PADIS 15.2

Case study:
- Not available

Contact:
- Not provided
InselAir (7I)

NDC Strategy:
- Benefitting from full NDC value proposition
- Improving travel experience while retaining full control of the products and their presentation

What has changed with NDC?
InselAir’s vision is to move from travel provider to experience provider, with full control over distribution. Through NDC they have been able to transform a one-size-fits-all product into a personalized offer at the right time for the right price.

NDC Project scope:
- **Message coverage**: Offer and order management
- **Scope**: Flights and ancillaries
- **Ancillaries**: a la carte and bundled
- **Type of Ancillaries**: Currently only Air-based, but ability to offer non-air based is present
- **Rich content**: Yes
- **Personalization**: In development
- **Airline Profile**: In development
- **Distribution channels**: Travel Agencies/Corporate portal (non-aggregation), Direct channels (ATO/CTO, call center)

NDC Partners:
- **JRTechnologies**: System Provider

Schema Version:
- **PADIS 16.1**

Case study:
- InselAir transforms from travel provider to experience provider

Contact:
- [www.fly-inselair.com](http://www.fly-inselair.com)
NDC Live Example:

![NDC Live Example Image]

The screenshot shows an interface for adding a company, with options to select different companies such as Accenture and Cognizant. Below is a flight status section displaying flights with their status, travel times, and destinations.
New Distribution Capability (NDC)

2016 NDC Deployments Report
January 2017

Included Services

Cuisines

Select Additional Services

Lounge Access

Outbound

Caracas
Port of Origin

Travel Assistance

On My Way™ Travel Assistance

Get extra protection in case of unexpected flight delays or cancellations.

On My Way service gives you access to 24/7 customer support via email or phone.

- Network of air carriers and airlines
- 24/7 customer support
- Baggage compensation
- Fares
- Family travel

Select

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GOL Linhas Aéreas (G3)

NDC Strategy:
- Using newest technology with the lowest possible cost solutions
- Using aggregators to distribute content

What has changed with NDC?
With NDC, GOL is able to promote its products such as the pre-purchase of excess baggage allowance, Special GOL Seat or Air Shuttle Services, across the entire travel industry, thereby increasing revenue potential.

NDC Project scope:
- **Message coverage**: Offer and order management
- **Scope**: Flights and ancillaries
- **Ancillaries**: a la carte and bundled
- **Type of Ancillaries**: Air: Seats, Baggage, Cabin upgrade; Non Air: Meal, Car rental, Insurance
- **Rich content**: yes
- **Personalization**: yes
- **Airline Profile**: yes
- **Distribution channels**: Aggregators, Online Travel Agents, Travel Agents, Travel Management Companies, Tour Operators

NDC Partners:
- **Navitaire**: System provider
- **Reserve**: Aggregator
- **Flytour**: Travel Agent
- **Rextur-Advance**: Travel Agent

Schema Version:
- **NDC 1.1.3**

Case study:
- **GOL’s innovation makes NDC a natural fit**

Contact:
- **Distribution Manager**: Luciana Baptistini Granado, lbgranado@voegol.com.br
American Airlines (AA)

NDC Strategy:
- Offering products through as many channels as possible
- Highlight attributes that differentiate American Airlines’ products

What has changed with NDC?
NDC facilitates the sales of ancillary products such as American’s Main Cabin Extra and Preferred seats. Main Cabin Extra (which primarily provide extra legroom) and Preferred Seats (which mainly offer the most sought-after seat locations in an aircraft). Agents can now view, select a seat on a seat map and book paid seats.

NDC Project scope:
- **Message coverage**: Offer management
- **Scope**: Flights and ancillaries
- **Ancillaries**: a la carte
- **Type of Ancillaries**: Air: seat; Non Air: n/a
- **Rich content**: no
- **Personalization**: no
- **Airline Profile**: no
- **Distribution channels**: indirect

NDC Partners:
- Farelogix
- Reserve

Schema Version:
- NDC 1.1.3

Case study:
- Not available

Contact:
- None provided
Air China (CA)

NDC Strategy:

- Connecting to Travelsky’s direct connect distribution platform (CDP*)

What has changed with NDC?

After the implementation of NDC, accredited sellers can purchase air ticket and pre-reserve seats which was only possible on the airline’s website before.

NDC Project scope:

- **Message coverage**: Offer and order management
- **Scope**: Flights and ancillaries
- **Ancillaries**: a la carte
- **Type of Ancillaries**: Air: Seats, Baggage; Non Air: n/a
- **Rich content**: yes
- **Personalization**: no
- **Airline Profile**: no
- **Distribution channels**: Travel Agencies Direct, Aggregators

NDC Partners:

- **Travelsky**: System Provider

Schema Version:

- **PADIS 15.2**

Case study:

- Travelsky plans long-term support of the Airlines

Contact:

- Distribution, Sales, Commercial: Cao Yipeng, caoyipeng@airchina.com

*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents*
China Southern Airlines (CZ)

NDC Strategy:
- Multi-channel distribution strategy
- Direct connect with travel agents especially OTA/TMC/E-commerce companies

What has changed with NDC?
China Southern can provide products to travel agents willing to connect directly and using a common interface profile. NDC provides an international standardized reference for China Southern to connect with different sales systems from different partners around the world.

NDC Project scope:
- **Message coverage:** Offer and order management
- **Scope:** Flights only
- **Ancillaries:** n/a
- **Type of Ancillaries:** n/a
- **Rich content:** yes
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Direct Connect through Online Travel Agents

NDC Partners:
- **Ctrip:** Travel Agent

Schema Version:
- **PADIS 1.1.3**

Case study:
- Not available

Contact:
- Iris Xing, xingys@csair.com
China Eastern Airlines (MU)

NDC Strategy:
- Implementing the latest version of NDC schemas and deploying NDC API as a component of the new e-commerce platform
- Passing NDC certification based on the newest schema version to gain industry recognition
- Preparing for plug-and-play in the future with NDC partners

What has changed with NDC?
Not provided

NDC Project scope:
- **Message coverage:** Offer and order management
- **Scope:** Flights only
- **Ancillaries:** n/a
- **Type of Ancillaries:** n/a
- **Rich content:** no
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Direct connect through Online Travel Agents

NDC Partners:
- **Shanghai Airline Tour International Co.:** Travel Agent
- **Aqueduct:** System Provider

Schema Version:
- **PADIS 16.2**

Case study:
- **Not available**

Contact:
- General Manager PSS Dept.: Bo Wu, bwu@ceair.com
Hainan Airlines (HU)

NDC Strategy:
- Using Travelsky’s direct connect distribution platform (CDP*) to exchange information with the connected channels. CDP is a direct distribution platform that helps airlines to direct connect to Agents/OTA/Corporate and any channel to distribute airlines’ air and ancillary products.

What has changed with NDC?
The main benefits are that airlines have more control of the different distribution channels, can present more product information and ultimately sell more products.

NDC Project scope:
- **Message coverage:** Offer and order management
- **Scope:** Flights only
- **Ancillaries:** n/a
- **Type of Ancillaries:** n/a
- **Rich content:** yes
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Agencies Direct, Aggregators

NDC Partners:
- **Travelsky:** System Provider

Schema Version:
- **PADIS 15.2**

Case study:
- **Not available**

Contact:
- **Lu Junhui, jh-lu@hnair.com**

*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents*
Hong Kong Airlines (HX)

NDC Strategy:
- Using Travelsky's direct connect distribution platform (CDP*) to exchange information with the connected channels. CDP is a direct distribution platform that helps airlines to direct connect to Agents/OTA/Corporate and any channel to distribute airlines' air and ancillary products.

What has changed with NDC?
The main benefits are that airlines have more control of the different distribution channels, can present more product information and ultimately sell more products.

NDC Project scope:
- **Message coverage**: Offer and order management
- **Scope**: Flights only
- **Ancillaries**: n/a
- **Type of Ancillaries**: n/a
- **Rich content**: no
- **Personalization**: no
- **Airline Profile**: no
- **Distribution channels**: Travel Agencies Direct, Aggregators

NDC Partners:
- **Travelsky**: System Provider

Schema Version:
- **PADIS 15.2**

Case study:
- **Not available**

Contact:
- **Director, e-Commerce dept.: Yankun Wang, waynewang@hkairlines.com**

*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents*
Jiangxi Air (RY)

NDC Strategy:
- Deploying NDC API to connect to supplier’s NDC-enabled mobile app
- Passing NDC certification based on the newest schema version to gain industry recognition

What has changed with NDC?
- Not provided

NDC Project scope:
- Message coverage: Offer management
- Scope: Flights only
- Ancillaries: n/a
- Type of Ancillaries: n/a
- Rich content: no
- Personalization: no
- Airline Profile: no
- Distribution channels: Aggregators, Consolidators

NDC Partners:
- RedApplenet: System Provider

Schema Version:
- PADIS 15.2

Case study:
- Not available

Contact:
- None provided
**Shandong Airlines (SC)**

**NDC Strategy:**
- Using Travelsky's direct connect distribution platform (CDP*) to exchange information with the connected channels. CDP is a direct distribution platform that helps airlines to direct connect to Agents/OTA/Corporate and any channel to distribute airlines’ air and ancillary products.

**What has changed with NDC?**
The main benefits are that airlines have more control of the different distribution channels, can present more product information and ultimately sell more products.

**NDC Project scope:**
- **Message coverage:** Offer and order management
- **Scope:** Flights and ancillaries
- **Ancillaries:** a la carte
- **Type of Ancillaries:** Air: Seats, Baggage ; Non Air: Travel Insurance, Car Services
- **Rich content:** yes
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Supplier Website, Supplier Mobile App, Travel Agencies Direct, Aggregators

**NDC Partners:**
- **Travelsky:** System Provider

**Schema Version:**
- **PADIS 15.2**

**Case study:**
- **Travelsky plans long-term support of the Airlines**

**Contact:**
- E-Commerce Manager: Wei Cao, caow@shandongair.com.cn

*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents*
Shenzhen Airlines (ZH)

**NDC Strategy:**
- Using Travelsky’s direct connect distribution platform (CDP*) to exchange information with the connected channels. CDP is a direct distribution platform that helps airlines to direct connect to Agents/OTA/Corporate and any channel to distribute airlines’ air and ancillary products.

**What has changed with NDC?**
The main benefits are that airlines have more control of the different distribution channels, can present more product information and ultimately sell more products.

**NDC Project scope:**
- **Message coverage:** Offer and order management
- **Scope:** Flights only
- **Ancillaries:** n/a
- **Type of Ancillaries:** n/a
- **Rich content:** no
- **Personalization:** no
- **Airline Profile:** no
- **Distribution channels:** Travel Agencies Direct, Aggregators

**NDC Partners:**
- **Travelsky:** System Provider

**Schema Version:**
- PADIS 15.2

**Case study:**
- Not available

**Contact:**
- e-Commerce Centre Director: Qingyi Zeng, zengqingyi@shenzhenair.com

*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents
Xiamen Airlines (MF)

NDC Strategy:
- Using Travelsky’s direct connect distribution platform (CDP*) to exchange information with the connected channels. CDP is a direct distribution platform that helps airlines to direct connect to Agents/OTA/Corporate and any channel to distribute airlines’ air and ancillary products.

What has changed with NDC?
The main benefits are that airlines have more control of the different distribution channels, can present more product information and ultimately sell more products.

NDC Project scope:
- Message coverage: Offer and order management
- Scope: Flights only
- Ancillaries: n/a
- Type of Ancillaries: n/a
- Rich content: no
- Personalization: no
- Airline Profile: no
- Distribution channels: Travel Agencies Direct, Aggregator

NDC Partners:
- Travelsky: System Provider

Schema Version:
- PADIS 15.2

Case study:
- Not available

Contact:
- Song Xueyuan, songxueyuan@xiamenair.com

*CDP = Carrier Direct Platform, a Travelsky solution which connects airlines to travel agents
Appendix B – NDC messages certified

NDC messages certified by version of the schema

- **ServicePriceRS**
  - NDC 1.1.3: 2
  - PADISPublication 15.2: 3
  - PADISPublication 16.1: 3
  - PADISPublication 16.2: 3

- **ServicePriceRQ**
  - NDC 1.1.3: 2

- **ServiceListRS**
  - NDC 1.1.3: 3

- **ServiceListRQ**
  - NDC 1.1.3: 3

- **SeatAvailabilityRS**
  - NDC 1.1.3: 3

- **SeatAvailabilityRQ**
  - NDC 1.1.3: 3

- **OrderViewRS**
  - NDC 1.1.3: 12

- **OrderRetrieveRQ**
  - NDC 1.1.3: 4

- **OrderRetrieveRS**
  - NDC 1.1.3: 4

- **OrderListRS**
  - NDC 1.1.3: 1

- **OrderListRQ**
  - NDC 1.1.3: 1

- **OrderCreateRQ**
  - NDC 1.1.3: 11

- **OrderChangeRQ**
  - NDC 1.1.3: 4

- **OrderCancelRS**
  - NDC 1.1.3: 4

- **OrderCancelRQ**
  - NDC 1.1.3: 4

- **ItinReshopRS**
  - NDC 1.1.3: 2

- **ItinReshopRQ**
  - NDC 1.1.3: 2

- **FlightPriceRS**
  - NDC 1.1.3: 3

- **FlightPriceRQ**
  - NDC 1.1.3: 3

- **FileRetrieveRS**
  - NDC 1.1.3: 3

- **FileRetrieveRQ**
  - NDC 1.1.3: 3

- **FareRulesRS**
  - NDC 1.1.3: 3

- **FareRulesRQ**
  - NDC 1.1.3: 3

- **BaggageListRS**
  - NDC 1.1.3: 3

- **BaggageListRQ**
  - NDC 1.1.3: 3

- **BaggageChargesRS**
  - NDC 1.1.3: 3

- **BaggageChargesRQ**
  - NDC 1.1.3: 3

- **BaggageAllowanceRS**
  - NDC 1.1.3: 3

- **BaggageAllowanceRQ**
  - NDC 1.1.3: 3

- **AirShoppingRS**
  - NDC 1.1.3: 12

- **AirShoppingRQ**
  - NDC 1.1.3: 12

- **AirlineProfileRS**
  - NDC 1.1.3: 1

- **AirlineProfileRQ**
  - NDC 1.1.3: 1

- **AirlineProfileNotif**
  - NDC 1.1.3: 3

- **AirDocVoidRS**
  - NDC 1.1.3: 3

- **AirDocVoidRQ**
  - NDC 1.1.3: 3

- **AirDocIssueRQ**
  - NDC 1.1.3: 3

- **AirDocDisplayRS**
  - NDC 1.1.3: 3

- **AirDocDisplayRQ**
  - NDC 1.1.3: 3

- **FlightPriceRS**
  - NDC 1.1.3: 3
Appendix C – NDC use cases coverage

Appendix C shows the extent of the coverage of the use cases deployed by the airlines. The use cases are being described in the Business Requirement Documents (BRDs) that were defined by the industry together with the NDC schemas. They show the different scenarios in which NDC can be applied.

* Use case coverage (% of airlines)*

<table>
<thead>
<tr>
<th>Use case description</th>
<th>Coverage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0: Generic use cases - Shopping Use Case: Direct</td>
<td>73%</td>
</tr>
<tr>
<td>0: Generic use cases - Shopping Use Case: Through an Aggregator</td>
<td>91%</td>
</tr>
<tr>
<td>1: Shopping via TMC</td>
<td>18%</td>
</tr>
<tr>
<td>2: OTA with aggregated and direct connect using shopping basket</td>
<td>55%</td>
</tr>
<tr>
<td>3: Corporate booking tool</td>
<td></td>
</tr>
<tr>
<td>4: Meta search engine shopping with Attribute shopping</td>
<td>9%</td>
</tr>
<tr>
<td>5: Leisure travel agency with anonymous affinity shopping</td>
<td>55%</td>
</tr>
<tr>
<td>6: Tour operator building dynamic package</td>
<td>9%</td>
</tr>
<tr>
<td>7: Through Fare Journeys on interline Marketing carriers</td>
<td></td>
</tr>
<tr>
<td>1: Common create order use case</td>
<td>100%</td>
</tr>
<tr>
<td>2: Group booking</td>
<td>9%</td>
</tr>
<tr>
<td>3: Booking via TMC</td>
<td></td>
</tr>
<tr>
<td>4: Leisure travel agency with anonymous affinity shopping</td>
<td>55%</td>
</tr>
<tr>
<td>5: Non flight order (frequent pass, booklet 10 flights)</td>
<td></td>
</tr>
<tr>
<td>6: Dynamic bundle</td>
<td>36%</td>
</tr>
<tr>
<td>7: Change itinerary (re-shop) on an existing order</td>
<td></td>
</tr>
<tr>
<td>8: UC with change upgrade</td>
<td>9%</td>
</tr>
<tr>
<td>9: Common booking use case – Name change</td>
<td></td>
</tr>
<tr>
<td>10: UC with change from anonymous offer to a personalized offer</td>
<td></td>
</tr>
<tr>
<td>11: Conditional change due to a qualifying passenger</td>
<td></td>
</tr>
<tr>
<td>12: Wishlist</td>
<td></td>
</tr>
<tr>
<td>13: Involuntary changes</td>
<td>9%</td>
</tr>
<tr>
<td>14: Common booking</td>
<td></td>
</tr>
<tr>
<td>15: Metasearch booking</td>
<td></td>
</tr>
<tr>
<td>16: Create flight order with instant purchase</td>
<td>100%</td>
</tr>
<tr>
<td>1: Single Airline, Single Passenger, Single From of Payment</td>
<td>82%</td>
</tr>
<tr>
<td>2: Codeshare: airline marketed, OA operated multi PAX, infant-no seat, POP</td>
<td></td>
</tr>
<tr>
<td>3: EMD-S issuance – single airline, ancillary only, companions, multiple forms</td>
<td></td>
</tr>
<tr>
<td>4: Refund request</td>
<td>27%</td>
</tr>
<tr>
<td>5: Change request</td>
<td></td>
</tr>
<tr>
<td>6: Void EMD request</td>
<td></td>
</tr>
<tr>
<td>7: System cancel request</td>
<td></td>
</tr>
</tbody>
</table>

* Scope of 12 Live Airlines who provided consent to disclose the information.

2 BRDs are available at: http://www.iata.org/whatwedo/airline-distribution/ndc/Documents/ndc-brds-20160920.zip