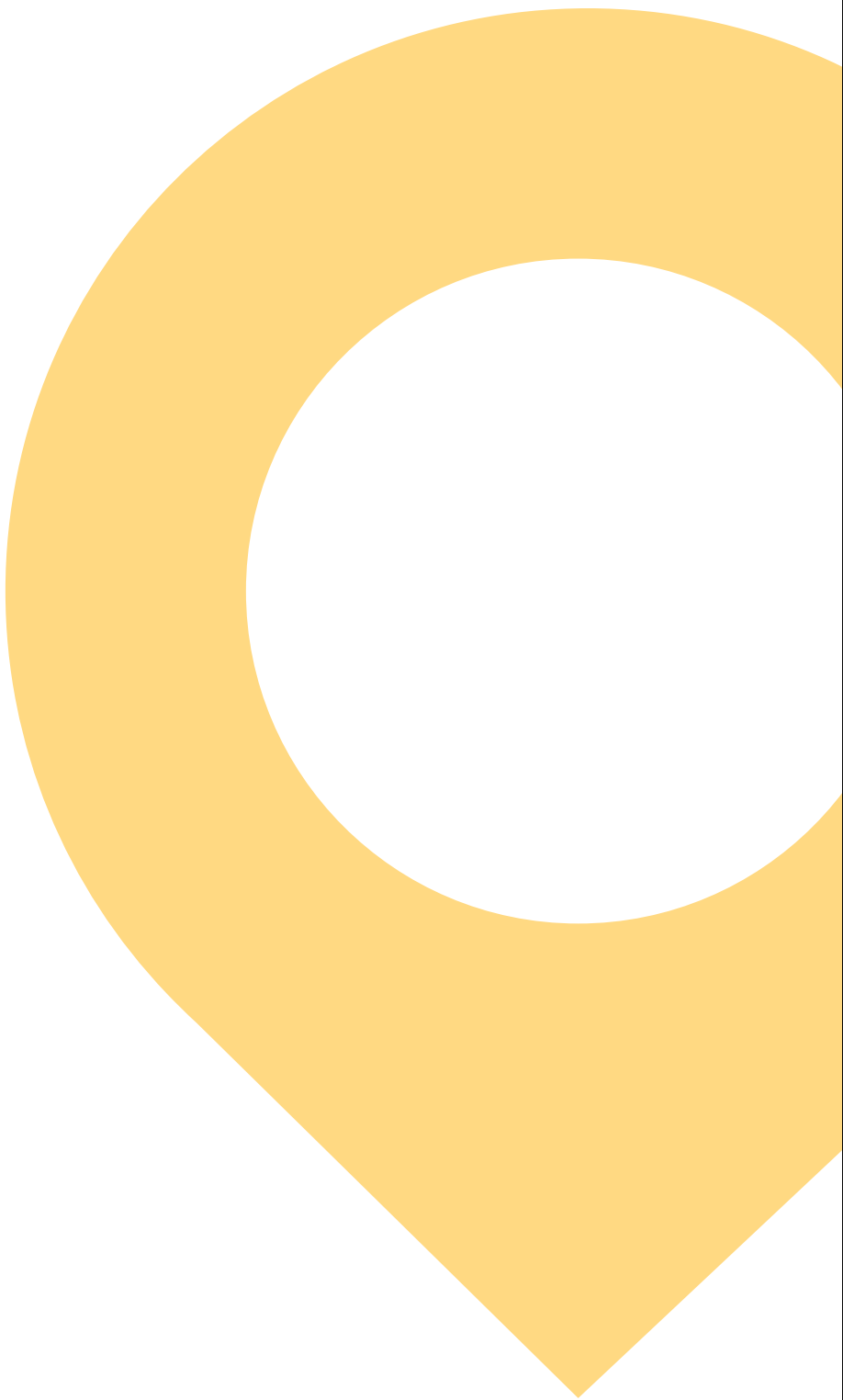# NDC TAKE OFF:
# PLANNING FOR THE LONG HAUL

IMPERATIVE TO MODERNIZE
DISTRIBUTION CHANNELS
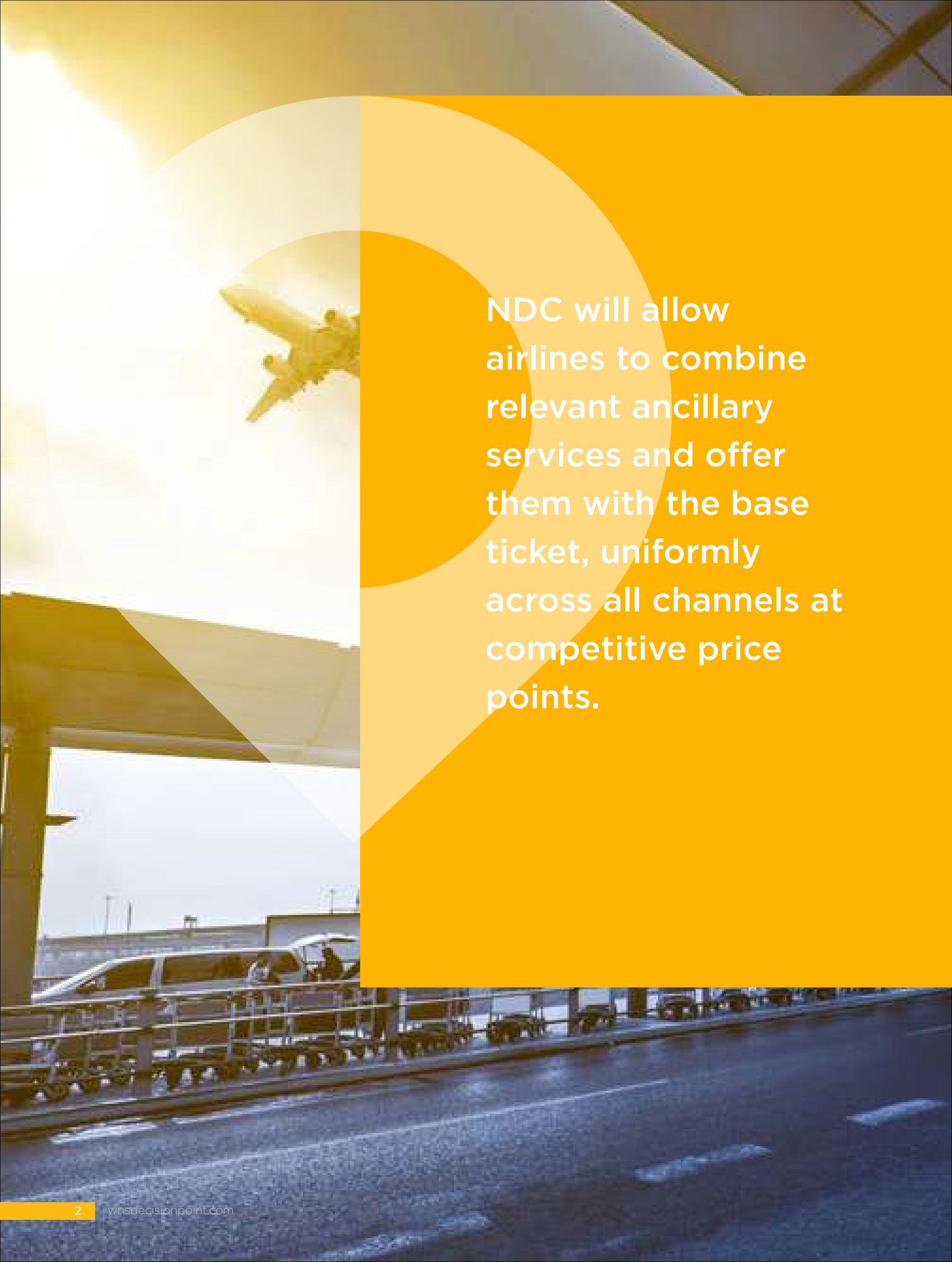
**DECISION POINT**™
— by **WNS**

# Overview

2016 will witness the first set of live implementations of NDC (New Distribution Capability), proposed by the IATA[1] in October, 2012. Over the last few years, NDC has been the source of quite a few disagreements between the IATA and the GDS[2] companies. The various other key stakeholders in the adoption of this new standard are airlines, filing agencies[3] , travel agencies, IT providers, and travelers. There was an initial perception that the traditional intermediary role of the GDS in the airline distribution system will lose relevance as NDC will allow resellers to directly connect with the airlines' offer management systems. However, over time and through a series of deliberations, GDSs have adopted a more conciliatory tone. They have accepted the initiative as an important one and are today, an integral part of the NDC implementation process. The future success of GDSs will be measured by how well they create products and solutions that embrace and take advantage of NDC and how fully they can exploit their future roles of aggregators in the new system.

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[1] IATA: International Air Transport Association

[2] GDS: Global Distribution System is a network operated by a company that enables automated transactions between travel service providers (mainly airlines, hotels and car rental companies) and travel agencies

[3] Fare filing is a fully automated program that manages consistent filing platform to control ticketing and pricing distribution

NDC will allow airlines to combine relevant ancillary services and offer them with the base ticket, uniformly across all channels at competitive price points.

# WHAT DOES NDC PLAN TO ACHIEVE?

NDC is a program launched by the IATA for the development and market adoption of a new, XML-based data transmission standard (NDC Standard). The objective is to enhance the communication capability between airlines and travel agents. In effect, it aims to transform the way air products are sold to end-customers by ensuring that uniform and comprehensive merchandise information is made easily available across all booking channels. NDC will also be open to third-party intermediaries, IT providers and non-IATA members to implement and use.
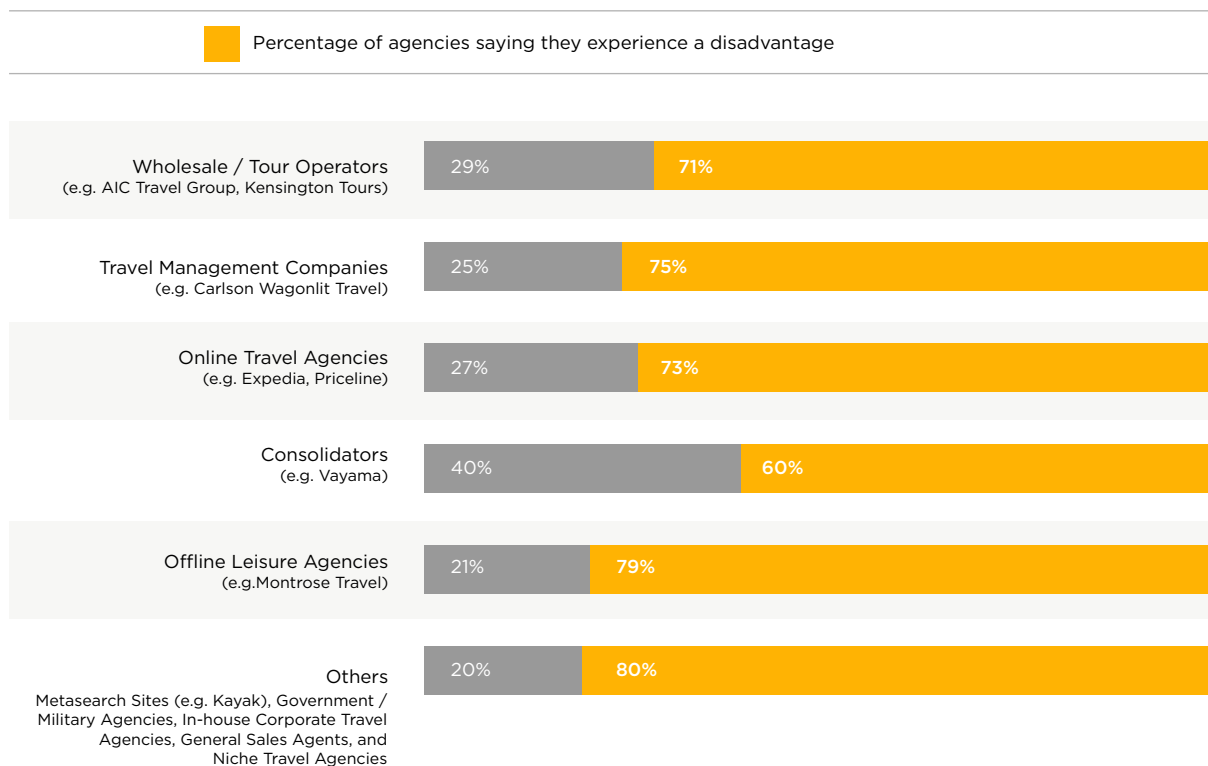
With online shopping becoming more popular by the day, having all ticket options and ancillary combinations available through any channel is becoming a necessity. The industry's current distribution system, with GDS as an intermediary, fails to meet this necessity. As a result, there is a commoditization of airline tickets. In an environment where other differences cannot be consistently seen, price has become the only consideration. NDC will allow airlines to combine various ancillary services, based on the customer's preferences, and offer them with the base ticket at competitive price points. This will enhance the potential revenue from each passenger and omit the GDS cost per transaction in case the resellers connect directly with the airline offer management system.

Exhibit 1 shows how a vast majority of the agencies feel they are at a disadvantage while selling airline ancillary products via GDS. The reason is evident in the following exhibit 2.

**EXHIBIT 1**

## Inability to Access Airline Ancillary Products in GDSs



Percentage of agencies saying they experience a disadvantage

| | | |
|---|---|---|
| Wholesale / Tour Operators (e.g. AIC Travel Group, Kensington Tours) | 29% | 71% |
| Travel Management Companies (e.g. Carlson Wagonlit Travel) | 25% | 75% |
| Online Travel Agencies (e.g. Expedia, Priceline) | 27% | 73% |
| Consolidators (e.g. Vayama) | 40% | 60% |
| Offline Leisure Agencies (e.g.Montrose Travel) | 21% | 79% |
| Others Metasearch Sites (e.g. Kayak), Government / Military Agencies, In-house Corporate Travel Agencies, General Sales Agents, and Niche Travel Agencies | 20% | 80% |

Source:'NDC: Travel Agencies' Enabler to Success, October, 2015

EXHIBIT 2

## Flight Comparison and Merchandise Display on Indirect Channels in the Current System:

Customers can only view stops, schedule and price

| ORD Chicago → LHR London | | | | | |
|---|---|---|---|---|---|
| | STOPS | DEPARTS | ARRIVE | DURATION | PRICE |
| AIRLINE 1 | 0 | 23:00 | 12:40 | 7h 40m | $1,444 | **BOOK** |
| AIRLINE 2 | 0 | 18:25 | 8:25 | 8h 00m | $1,459 | **BOOK** |
| AIRLINE 3 | 1 | 21:10 | 13:30 | 10h 20m | $1,050 | **BOOK** |

EXHIBIT 3

## Flight Comparison and Merchandise Display on Indirect Channels Post NDC

Customers can compare all features, not just price. Mirrors the choice of combinations displayed on airline Websites

ORD Chicago → LHR London

Clicking on each ancillary option will display details for each airline

In Flight Services    Airport Facilities    Baggage Details    Fare Families

| | STOPS | DEPARTS | ARRIVE | DURATION | | PRICE (Based on chosen ancillaries) | |
|---|---|---|---|---|---|---|---|
| AIRLINE 1 | 0 | 23:00 | 12:40 | 7h 40m | | $1,612 | **BOOK** |
| | Economy | Meal Included | *IFE Included | Baggage +1 extra ($150) | WiFi ($18) | | |
| AIRLINE 2 | 0 | 18:25 | 8:25 | 8h 00m | | $1,619 | **BOOK** |
| | Economy | Meal Included | *IFE Included | Baggage +1 extra ($140) | WiFi ($20) | | |
| AIRLINE 3 | 1 | 21:10 | 13:30 | 10h 20m | | $1,235 | **BOOK** |
| | Economy | Meal Included | *IFE Included | Baggage +1 extra ($155) | WiFi ($30) | | |

*Inflight Entertainment

In addition to the above changes, NDC will also enable customization of offers by airlines, based on passengers' buying history, if they choose to reveal their identity at the search stage. The new system, with consistent customer experience across channels, could change the approach from mere distribution to e-commerce.

To understand the flow of data at the backend that will make the above change a reality, it makes sense to have a look at the current flight distribution system and the planned distribution system post NDC.
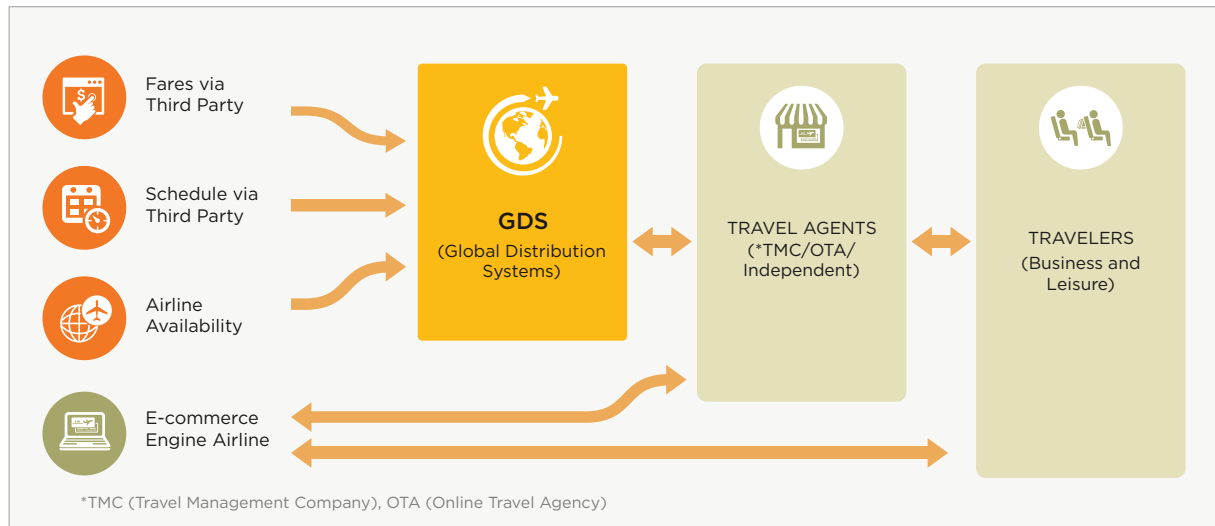
EXHIBIT 4

## Current Flight Distribution System



Fares via Third Party

Schedule via Third Party

Airline Availability

E-commerce Engine Airline

**GDS**
(Global Distribution Systems)

TRAVEL AGENTS
(*TMC/OTA/ Independent)

TRAVELERS
(Business and Leisure)

*TMC (Travel Management Company), OTA (Online Travel Agency)

EXHIBIT 5

## Planned Flight Distribution System, Post NDC



**AIRLINE OFFER MANAGEMENT SYSTEM**

(Schedule, Fare, Availability, Pricing under a single umbrella)

Content Aggregators to create the Platform (GDS or New Entrants)

TRAVEL AGENTS
(*TMC/OTA/ Independent)

Access to richer content

TRAVELERS
(Served better by efficient and realtime data analysis, facilitated by the XML standard)

*TMC (Travel Management Company), OTA (Online Travel Agency)
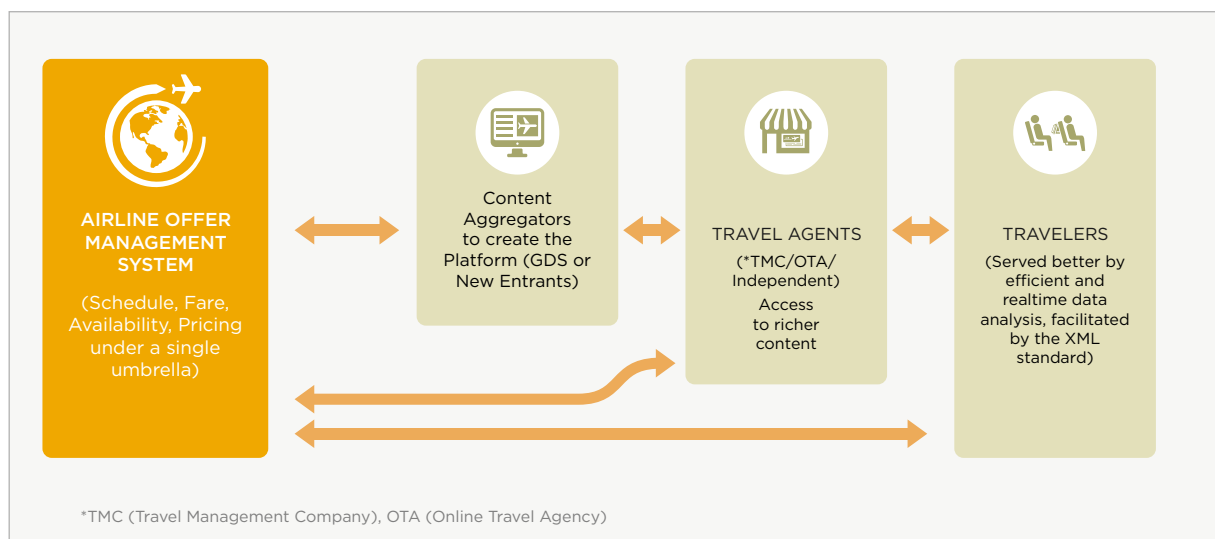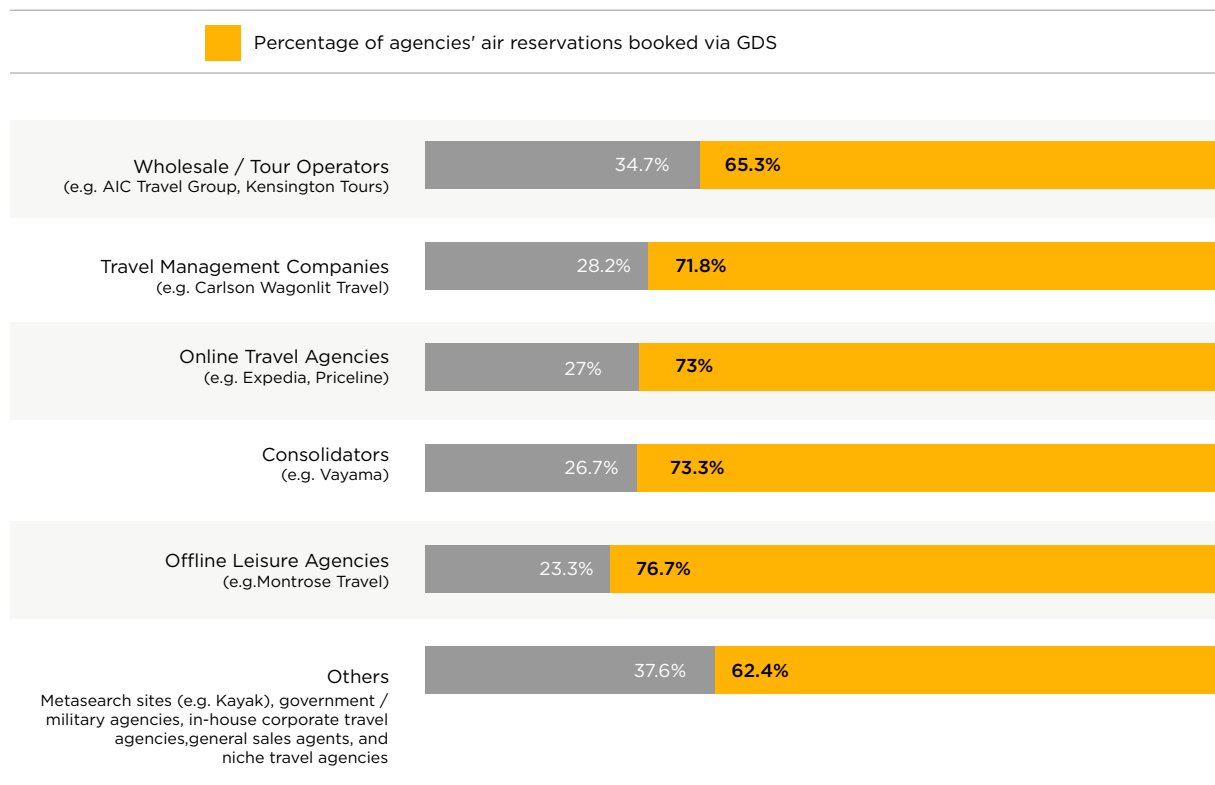
# HOW WILL NDC AFFECT GDSs?

In the post-NDC implementation phase, all the merchandise content using the common XML data transmission standard will be available from the Airline Offer Management System rather than them being acquired separately from multiple sources such as

ATPCO (Airline Tariff Publishing Company), OAG and Innovata (airline schedules database providers), and others. Agencies can, therefore, choose whether or not to directly connect to the Airline Offer Management System instead of connecting via GDS.

However, given the level of competition among airlines to capture the market and the fact that GDSs' share of global airline reservation volume is still quite significant, it is unlikely that the distribution systems will do away with GDSs.

**EXHIBIT 6**

## GDS Share of Indirect Air Reservations

Percentage of agencies' air reservations booked via GDS

| Category | Non-GDS | GDS |
|---|---|---|
| Wholesale / Tour Operators (e.g. AIC Travel Group, Kensington Tours) | 34.7% | 65.3% |
| Travel Management Companies (e.g. Carlson Wagonlit Travel) | 28.2% | 71.8% |
| Online Travel Agencies (e.g. Expedia, Priceline) | 27% | 73% |
| Consolidators (e.g. Vayama) | 26.7% | 73.3% |
| Offline Leisure Agencies (e.g.Montrose Travel) | 23.3% | 76.7% |
| Others — Metasearch sites (e.g. Kayak), government / military agencies, in-house corporate travel agencies,general sales agents, and niche travel agencies | 37.6% | 62.4% |

Source: ¹NDC: Travel Agencies' Enabler to Success, October, 2015

There are, however, efforts to weaken GDSs' influence. The Lufthansa Group started levying a GDS surcharge of €16 on every booking made via GDS, much to the resentment of the latter. The European Travel Agents Association, the European Tour Operators Association and the European Technology and Travel Services Association filed complaints against this move with the European Commission. The extent of impact of this development remains to be seen. According to figures released by the GTMC[4], Lufthansa lost 8.5[ii] per cent market share (32.9 per cent to 24.4 per cent) between June and November 2015, after it introduced the GDS surcharge in September, 2015. GTMC stated that the drop indicates a shift of travel management companies away from

Lufthansa to avoid passing on the charge to their customers. It should be noted that Lufthansa claims that this was due to cancellations of flights on account of a couple of industrial actions during this period, along with the fact that bookings increased through other channels such as LH.com.

The situation surrounding NDC adoption is being monitored by the airlines. According to IATA, 180[iii] airlines were asked in February 2016 if they would implement the NDC standard. 50 per cent responded saying they had plans within the next four years. The planned NDC adoption roadmap, created by IATA, ends in 2017.
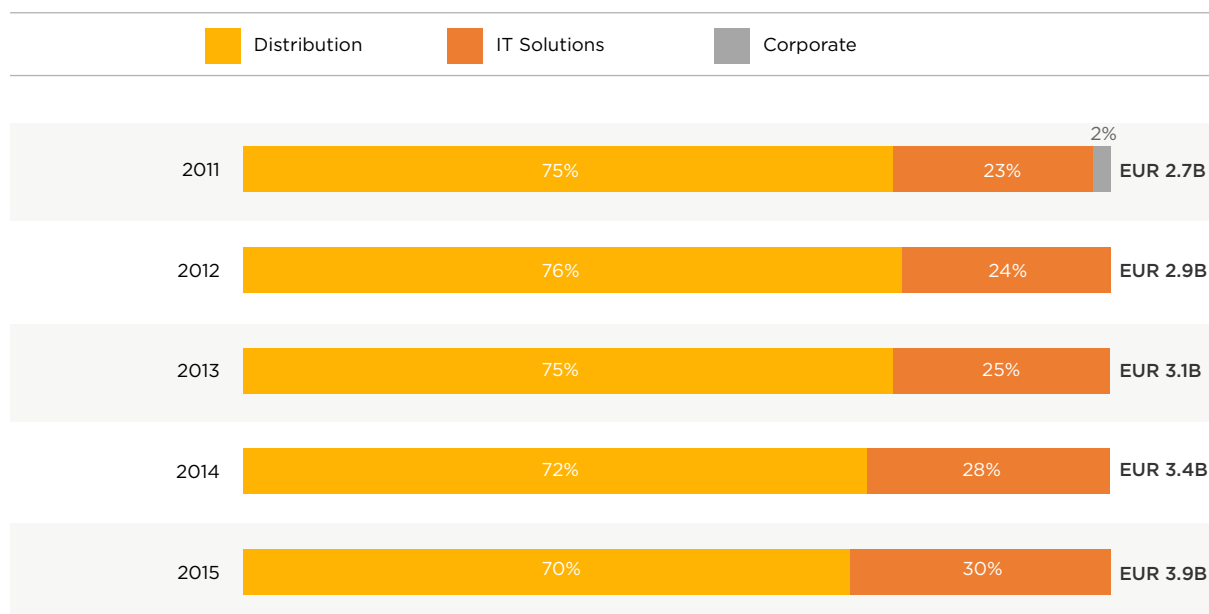
What we can expect is the existence of a dual system in the coming years, with the following three segments:

- Airlines fully adopting NDC

- Airlines partially adopting NDC (not all schemas)

- Airlines not using NDC

A natural fallout of such a trend will be that GDSs' role as intermediaries between airlines and agents will lose some importance and they will be more involved as aggregators and IT service providers in the emerging system. A look at the annual revenue of two of the biggest GDSs (Amadeus and Sabre) tells us how the revenue share of the distribution segment has already dropped in the last five years. This share is expected to dip further in the coming years due to their growing focus on the non-distribution part of their product portfolio.

**EXHIBIT 7**

## Amadeus IT Holding YoY Revenue Trend



Legend: Distribution — IT Solutions — Corporate

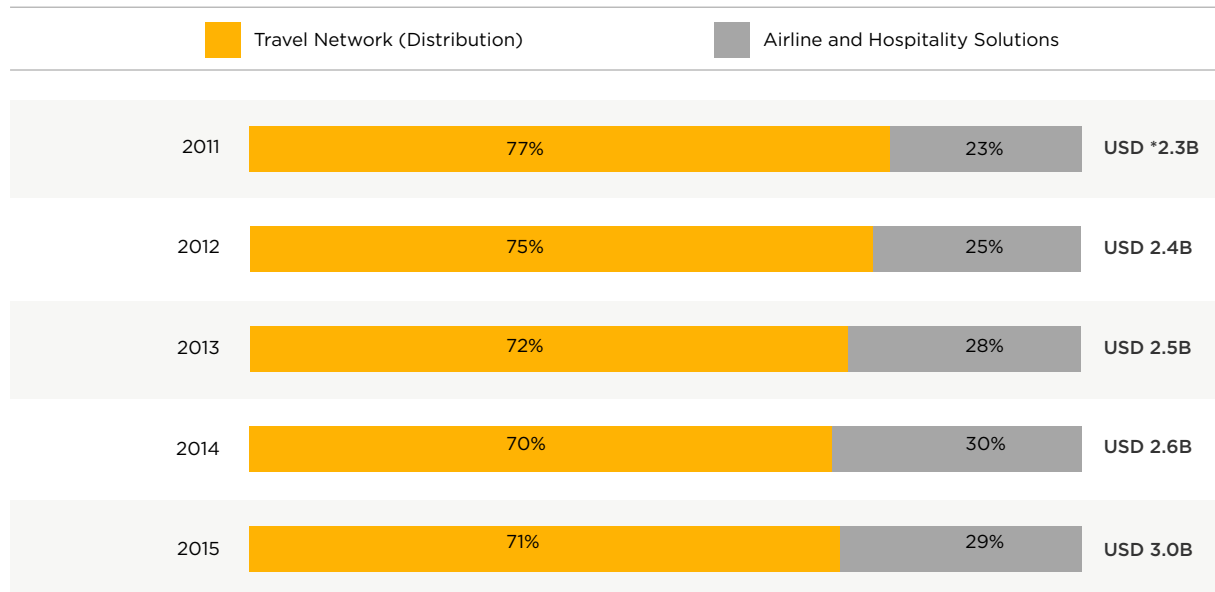| Year | Distribution | IT Solutions | Corporate | Total |
|------|-------------|--------------|-----------|-------|
| 2011 | 75% | 23% | 2% | EUR 2.7B |
| 2012 | 76% | 24% | | EUR 2.9B |
| 2013 | 75% | 25% | | EUR 3.1B |
| 2014 | 72% | 28% | | EUR 3.4B |
| 2015 | 70% | 30% | | EUR 3.9B |

Source: Amadeus IT Holding Financial Statements

[4] GTMC is a representative body of over 80% of Travel Management Companies in the UK

EXHIBIT 8

## Sabre Corporation

| | Travel Network (Distribution) | | Airline and Hospitality Solutions | |
|---|---|---|---|---|
| 2011 | 77% | | 23% | USD *2.3B |
| 2012 | 75% | | 25% | USD 2.4B |
| 2013 | 72% | | 28% | USD 2.5B |
| 2014 | 70% | | 30% | USD 2.6B |
| 2015 | 71% | | 29% | USD 3.0B |

\* Excluding Travelocity Revenue of USD 0.7B

Source: Sabre Corporation Financial Statements

# ARE GDSs EQUIPPED TO FACE THIS CHANGE?

The answer to this question lies in the way GDSs have evolved and diversified over the last couple of decades.

Since the late 1990s, GDS players have acquired other companies across the travel industry value chain, spanning ticket distribution, airline operations, airport technology, e-commerce travel platforms, hotel distribution, reservations and marketing. As the online marketplace grew rapidly, they kept acquiring companies offering specialized products in various geographies. Keeping in mind the evolving, lucrative travel and technology market, it was a safer bet to cast the net wide and try to develop a wider breadth of services than choose a specific line (if they could afford to).

Effectively, this strategy resulted in GDSs' rapid diversification into other segments of the broader travel and hospitality technology industry. Companies such as Amadeus and Sabre (which acquired Optims, Newmarket International, World Choice Travel, and SynXis) could develop expertise in the hotel technology platforms. In fact, Amadeus changed its name to Amadeus IT Group in 2006 to better reflect the expanded product portfolio. Acquisitions and partnerships were also extended to include operators in rail, car rental services, tourism, cruise and insurance. So, today, we have GDS companies which function as a conglomerate in the travel technology industry. What is interesting is that the two major GDSs – Amadeus and Sabre – have sold their stake in online travel agency (OTA) businesses over the last few years and have fully exited that segment. As the industry matures, we might see more of such sell offs and acquisitions until the time when GDSs are convinced of having a portfolio of services/products in line with a sustainable long-term strategy. At the moment, they have consolidated their interests into distribution and IT services for the travel industry.
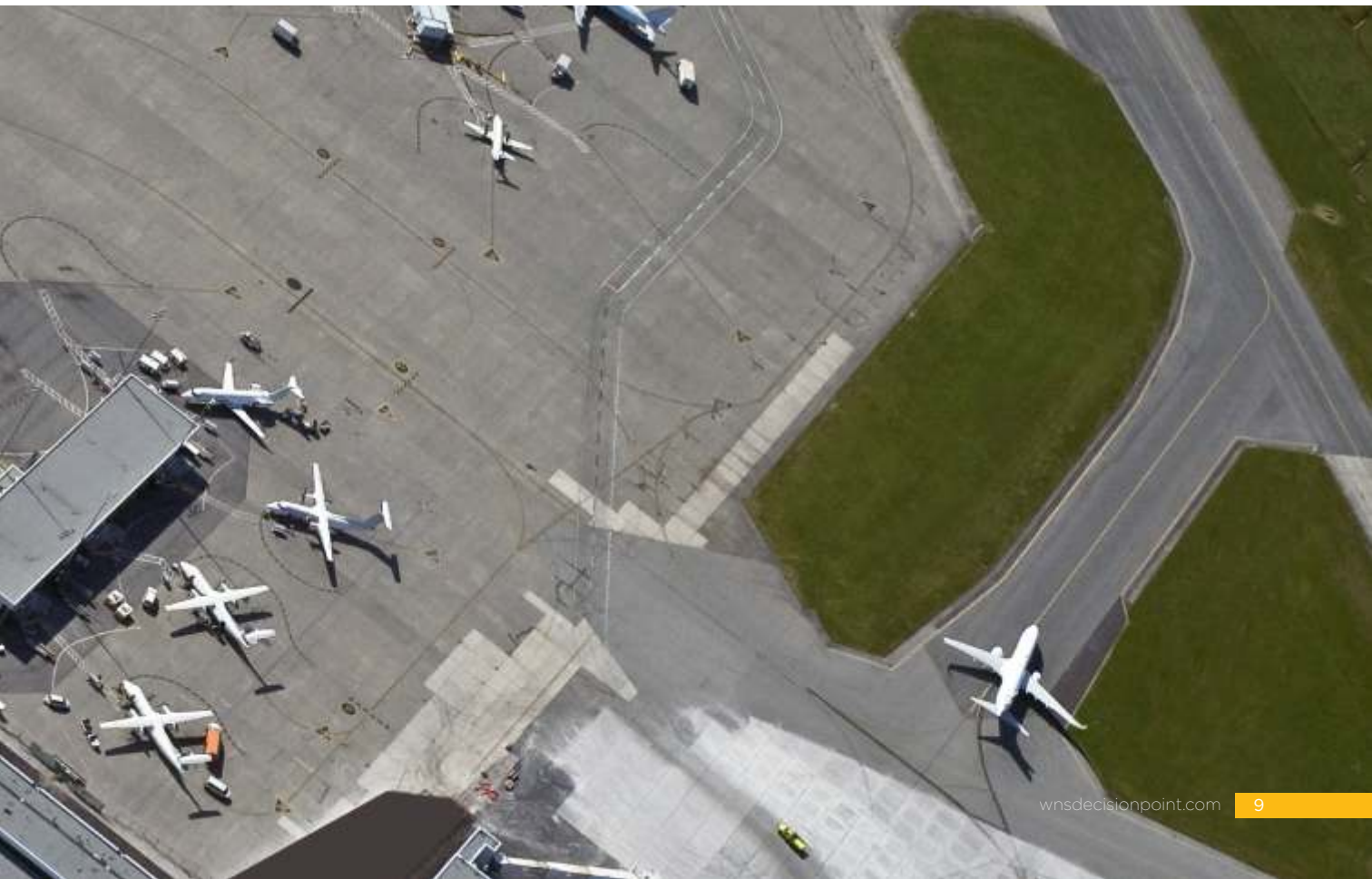
## Amadeus Acquisition and Partnership Journey

- Changed name from Amadeus Global Travel Distribution to Amadeus IT Group in 2006
- Amadeus became a public company again in 2010 with an IPO on the Spanish stock market
- The company had earlier been delisted in 2005 post change of ownership
- Amadeus has a broader portfolio of services including those of rail and airport segments

| Timeline | GDS / Airline Distribution | Agents, OTA | IT – Travel, e-commerce | IT – Airline ops | Hospitality – IT, Distribution | Rail – IT, Distribution | IT - Airport |
|---|---|---|---|---|---|---|---|
| 1987 - 1990 | Founded as a GDS | | | | | | |
| 1991 - 1995 | Acquired System One (NAM GDS) | | | | | | |
| 1996 - 2000 | | Acquired *Vacation.com | | | | | |
| 2001 - 2005 | Acquired Smart AB | Took controlling stake of *Opodo | Acquired e-travel | Acquired Airline Automation | Acquired Optims (hotel distribution) | | |
| 2006 - 2010 | | | Acquired Traveltainment | | | Partnership with Eurostar, Acquired OneRail | |
| 2011 - 2015 | | | Acquired i:FAO | Acquired Hitit Loyalty, Navitaire | Acquired Newmarket International, Itesso, Hotel SystemPro | | Acquired UFIS, AirIT |

\* Amadeus sold Vacation.com and Opodo in 2011

## Travelport Acquisition and Partnership Journey

- United Airlines introduced the world's first computerized airline reservation system, Apollo CRS in 1971
- Apollo became an independent affiliate of United and was rebranded as Covia in 1986
- Formation of Galileo partnership in 1987 and acquisition by Cendant Corporation in 2001
- Shift in corporate strategy from GDS to travel commerce from 2011
- Travelport got listed on the New York Stock Exchange in 2014

| Timeline | GDS / Airline Distribution | Agents, OTA | IT – Airline (including corporate), ecommerce | Hospitality – IT, Distribution |
|---|---|---|---|---|
| 2006 | Travelport brand launched | | | |
| 2007 - 2008 | Acquired Worldspan | | | |
| 2009 - 2010 | | Acquired Sprice | JV partner (57%) in eNett | |
| 2011 - 2012 | Official shift in corporate strategy from GDS to travel commerce platform | | | |
| 2013 - 2015 | Acquired majority stake in travel-IT | | Increased eNett stake to 73% Acquired 55% stake in Locomote Acquired Mobile Travel Technologies | Acquired Hotelzon |

# Sabre Acquisition and Partnership Journey

- The first passenger reservations system, offered by Sabre, was installed in 1960
- Low-fare search capability, Bargain Finder pricing, was introduced in the Sabre system in the 1980s
- Sabre completed an IPO for 18% of its stock in the 1990s
- 2000 marked Sabre's spin off from AMR
- More number of acquisitions than Amadeus since 2000, with focus on medium sized airlines

| Timeline | GDS / Airline Distribution | Agents, OTA | IT – Travel, e-commerce | IT – Airline ops | Hospitality –IT, distribution | Show Ticket - Distribution |
|---|---|---|---|---|---|---|
| 2000 - 2002 | Acquired Sabre Pacific | *Travelocity & Preview Travel merged, acquired GetThere, Site59 .com, Resfeber Scandinavia | Acquired Dillon Communication Systems, Gradient Solutions | Acquired David R. Bornemann Associates, Kiehl Hendrickson Group | | |
| 2003 - 2005 | Acquired Southwest Travel Systems | Acquired *IgoUgo.com, *lastminute.com | | Acquired asxResource, RM Rocade | Acquired World Choice Travel, Synxis Corp. | Acquired *All State Tours |
| 2006 - 2008 | | | Acquired Eb2 | Acquired Flight Explorer | Acquired E-site Marketing | |
| 2009 - 2011 | | | | Acquired Calidris, Flightline Data Services, f:wz | Acquired SoftHotel | |
| 2012 - 2015 | Acquired Abacus | | | Acquired Prism Group | Acquired Genares, Trust International | |

\* Sabre sold Travelocity (which had acquired Site59.com, Resfeber Scandinavia, Allstate Tours) and lastminute.com in 2015. IgoUgo.com closed in 2014

As aggregators and technology service providers in the new scheme of things, GDSs will no longer enjoy the high barrier to entry that is in place in the current distribution eco-system. As such, they will face competition from newer players, who will now be free to enter the market, using the XML data standard open for all to use. Additionally, the IATA has partnered with Travel Capitalist Ventures to create the NDC Innovation Fund (NDCIF), in order to encourage the NDC enabling companies and take equity stake in select start-ups. However, 18 months on, Travel Capitalist Ventures has decided to leave the initiative, citing severely deteriorating global economic and market conditions, affecting the early stage investments. No investments have been made by the NDCIF to date. The IATA is still looking for a new investment partner for the innovation fund initiative.

It is critical that the GDSs constantly innovate and maintain a comprehensive and relevant range of offers. This can be managed through a two-pronged strategy consisting of:

- In-house development of new products
- Strategic acquisitions

In the above context, it is very important for each GDS to have a clear view of its relative competitive position against the peers in the industry.

WNS DecisionPoint™ has developed a **Future Adaptability and Readiness Framework** to aid in the self-analysis of the existing GDS players as well as the new players in the aggregator market in the post-NDC world. The tool below can be used to rate the evaluation parameters as Red, Green, Amber  based on a relative assessment against peers.

🟢 Distinctly better than peers      🟡 Comparable to peers      🔴 Worse than peers

| Parameters | Explanation | GDS/ Aggregator ABC | Competitor 1 | Competitor 2 |
|---|---|---|---|---|
| Global Footprint | Network spread across continents, share of each region, share of emerging markets | 🟢 | 🟡 | 🟡 |
| LCC[5] Exposure | Penetration in the LCC market | 🟡 | 🟡 | 🟢 |
| Financial Health | Basic financials – revenue growth, EBIT/Operating Profit Margin, COGS Margin, SG&A Margin, Quick Ratio, Return on Assets, Return on Capital Employed | 🟢 | 🟢 | 🔴 |
| Cash Flow | Net Cash, Free Cash Flow (FCF) – indicative of capacity to make relevant acquisitions | 🟢 | 🟢 | 🔴 |
| Research and Development (R&D) Focus | R&D Margin (%) | 🟢 | 🟢 | 🟡 |
| Non-Distribution and Non-Air Revenue | IT service delivery capabilities  Penetration in non-air travel segments (for e.g. hotel, rail) | 🟢 | 🔴 | 🟢 |
| Open Technology Platform | Extent of use of open technology platform in products built – capacity to connect easily with external partners | 🟡 | 🟡 | 🟢 |

[5] LCC: Low Cost Carrier

# WHAT DOES A POST-NDC WORLD LOOK LIKE?

Successful implementation of NDC will have unique implications for each of the stakeholders in the value chain. A holistic view of the implications is very important before one can draw any firm conclusions.

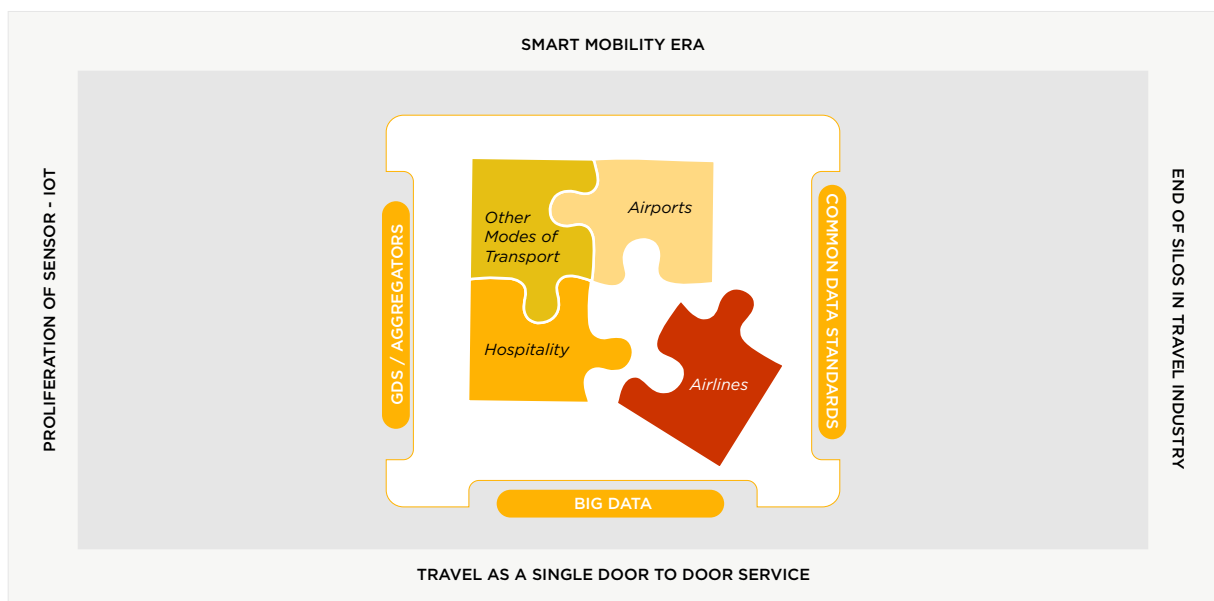| AIRLINE | AGGREGATOR | GDS | AGENCY | CUSTOMER |
|---------|-----------|-----|--------|----------|
| ▪ Innovatively use ancillary products to boost yield<br><br>▪ Highlight and promote fare families in a better way<br><br>▪ Increased usage of customer analytics due to growing volume of data<br><br>▪ Enhanced scope for customization for customers who reveal their identity at the search stage | ▪ Role will be to accept and integrate an airline's NDC XML API with other airline content from one or more sources<br><br>▪ Newer players contending in a market with big GDS companies as competitors | ▪ Role as intermediaries between airlines and agents will lose some importance<br><br>▪ Will also assume the role of aggregators and, thus, face the entry of newer competitors<br><br>▪ Need to focus on the non-distribution, IT side of the business | ▪ Accesses complete catalog of airline fares, products and offers through a single channel/screen<br><br>▪ Gain efficiency due to faster transaction time | ▪ Better customization will mean relevant promotional messages<br><br>▪ Loyalty members will clearly see the perks provided as a result of their loyalty status<br><br>▪ Enhanced experience in searching, booking and flying |

How each of the stakeholders respond and take advantage of the post NDC scenario, will be interesting to observe. The final process will generate a lot of structured customer data, enabling relevant customization of products and promotions.

# WHAT SHOULD GDSs BE DOING?

Amalgamating the benefits offered by disparate units under a common GDS umbrella will be both a challenge and an opportunity. Smart GDS companies will embrace the challenges, innovate on product offerings and position themselves for the future. NDC is only one of the many ideas (sharing economy, meta-search engines etc.) that will use the open technology standard to further revolutionize the travel industry in the coming decade. GDSs must make it their goal to anticipate the upcoming changes and be prepared to deal with them. If GDSs can work to convert new players from competitors to collaborators, they can reap the benefits of building a fully connected, multi-modal travel eco-system. Given their already extensive influence, GDSs are in the best position to de-commoditize airline merchandise and further connect with the other members (hotel, restaurants, local transport) of the travel value chain. The ultimate goal of a GDS should be to morph itself into a one-stop travel platform.



SMART MOBILITY ERA

PROLIFERATION OF SENSOR - IOT

END OF SILOS IN TRAVEL INDUSTRY

GDS / AGGREGATORS

COMMON DATA STANDARDS

Other Modes of Transport

Airports

Hospitality

Airlines

BIG DATA

TRAVEL AS A SINGLE DOOR TO DOOR SERVICE

NDC is challenging the core role of GDS as a distributor and pushing it to be an aggregator. The key is to create a comprehensive set of offerings that will facilitate partnerships by allowing seamless interaction with all the stakeholders of this interconnected industry eco-system. By doing this, GDSs can avoid becoming obsolete relics of the past, and instead, become champions of an innovative future.

# About DecisionPoint

Making key decisions that improve business performance requires more than simple insights. It takes deep data discovery and a keen problem solving approach to think beyond the obvious. As a business leader, you ought to have access to information most relevant to you that helps you anticipate potential business headwinds and craft strategies which can turn challenges into opportunities finally leading to favorable business outcomes.

WNS DecisionPoint™, a one-of-its kind thought leadership platform tracks industry segments served by WNS and presents thought-provoking original perspectives based on rigorous data analysis and custom research studies. Coupling empirical data analysis with practical ideas around the application of analytics, disruptive technologies, next-gen customer experience, process transformation and business model innovation; we aim to arm you with decision support frameworks based on points of fact. Drawing on our experience of working with 200+ clients around the world in key industry verticals, and knowledge collaboration with carefully selected partners, including Knowledge@Wharton, each research asset draws on "points of fact" to come up with actionable insights which enables 'bringing the future forward'.

# References

I.   NDC: Travel Agencies' Enabler to Success, October, 2015 - A report released by WTAAA ((World Travel Agents Associations Alliance), Atmosphere Research Group, T2Impact and IATA

ii.  https://www.tnooz.com/article/corporate-travel-group-claims-lufthansa-suffering-from-introduction-of-gds-surcharge/

iii. https://www.tnooz.com/article/half-of-airlines-will-move-to-ndc-and-agencies-love-it/

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