

BEFORE THE  
UNITED STATES DEPARTMENT OF TRANSPORTATION  
WASHINGTON, DC.

Agreement Adopted by the Passenger  
Services Conference of the International  
Air Transport Association

Docket OST-2013-

**APPLICATION FOR  
APPROVAL OF AN AGREEMENT (RESOLUTION 787) BY THE  
INTERNATIONAL AIR TRANSPORT ASSOCIATION**

**Notice: Any interested party may within 21 days of the application  
date file comments in support or opposition to the application.**

11 March 2013

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**Summary**

DOCKET: **OST-2013-[ ]**

DOT ORDER: **pending**

**Date:** 11 March 2013  
**Filing fee/IATA Acct:** \$61 **US/UST involved?:** yes  
**Intended effective date:** 1 June 2013  
**Meeting date/time:** 34<sup>th</sup> PSC held in Abu Dhabi on 18-19 October 2012  
Memorandum PSC/RESO/154 dated 4 January 2013  
**Agreement/Minutes:** Resolution 787 - PSC Minutes 29 through 43

**APPLICATION FOR APPROVAL OF RESOLUTION 787**

This application requests DOT to approve new IATA Resolution 787 (Enhanced Airline Distribution) that was adopted by the Passenger Services Conference during its 18-19 October 2012 meeting. Antitrust immunity is neither requested nor necessary for the Resolution, which establishes high-level objectives for and a process for developing a new electronic data interchange standard for airline distribution communications using Extensible Markup Language (XML), the modern programming language of the Internet. The Resolution is intended to become effective on 1 June 2013. Copies of the Resolution, the supporting conference documentation and conference minutes are attached.

Resolution 787 also refers to a New Distribution Capability, or NDC. NDC is an aspirational description of various improvements in distribution which, if adopted in the market, the new XML standard would be capable of supporting. These descriptions provide context to the business needs and benefits that the new standard will accommodate. IATA members will continue to consider the goals of NDC, but at this

time IATA seeks DOT's approval of Conference Resolution 787 only insofar as it describes a means to modernize distribution communications technology with a new XML standard. IATA is not seeking an endorsement of the stated business requirements or marketplace aspirations of NDC and recognizes that any additional conference agreements on standardization of distribution practices would need to be filed with DOT before becoming effective. IATA also acknowledges that the processes contained in previously approved Passenger Services Conference Resolution 783 would continue to govern the new Passenger Distribution Management Group's efforts under Resolution 787.

**I. BACKGROUND**

IATA was created in 1945 to support the development of standards to promote a safe and efficient international airline system. IATA has worked with its member airlines and other stakeholders to set a large spectrum of standards that significantly improve the efficiency of international aviation, improve passenger and cargo services, facilitate compliance with regulations and support interline capabilities. IATA developed and maintained the standards for neutral paper tickets, which were eventually replaced by standardized electronic ticketing. Two-letter airline identifiers, three-letter airport codes and the bar codes used on baggage tags and tickets are all examples of IATA-led standardization.

**A. The current distribution data communications standard was developed decades before the Internet.**

IATA and the Air Transport Association (now A4A) developed and maintained the data interchange standard currently used for shopping and purchasing tickets through

travel agents. This standard specifies the data format for seeking a fare quote and other functions. For instance, the standard defines certain data elements such as the dates of travel, origination and destination, type of traveler – adult, child or senior-class of service requested and so on. The format of these data elements must be recognizable by the computer receiving the request and is part of the standard. The response has certain specifications as well, as will each step in the process of shopping, booking, payment and post-ticketing changes or other servicing. Standardization of the data specification avoids the inefficiency of hundreds of individualized airline data formats that GDSs and others would have to match.

Airline distribution communications currently use message data specifications that were developed before the Internet provided ubiquitous global connectivity between airlines and airline customers. Starting in the 1960s, the airline industry built distribution applications in a computer language called TELETYPE and the data specifications were developed by IATA and A4A. Eventually, IATA led the industry to upgrade some of its data exchanges to EDIFACT messaging protocols, another set of data format rules originally developed under United Nations auspices. The format of messages, most notably the use of capital letters and the use of cryptic codes to indicate certain functions for the computers, has remained largely unchanged for more than four decades.

**B. The Internet introduced XML, a simpler, more flexible data format.**

With the advent of the Internet came a standard method to describe data structures called Extensible Markup Language (XML). XML provides a set of rules for exchanging data over the Internet in a simpler and more flexible format than EDIFACT.

XML has become the standard way to describe data structures and transmit data over the Internet and has become the default for the majority of applications that run on the Internet today.

Today, most airlines use XML to deliver their products and services directly to customers on their own websites while the indirect travel agency channel remains largely dependent on EDIFACT. XML makes it easier, faster and cheaper to provide the customer more information about fare alternatives, ancillary services, on-board amenities, and graphics such as pictures or seat maps, than programming in EDIFACT. The flexibility, ease and broad use of XML allow airlines to purchase applications supporting XML and/or quickly develop their own applications to meet the evolving needs of their passengers. To be clear, GDSs today do utilize some XML-based applications, and many airlines also still rely on legacy TELETYPE and EDIFACT platforms for customer communications. But recent shifts in individual airline distribution strategies have underscored the need to facilitate the expanded use of XML.

### **C. Changes in the market drive the need for modernization**

For decades, airline shopping has been based on only two factors; schedule and price, using “low fare search engines” to find only a single, often restricted, fare. Sole reliance on only those two factors has eroded as airlines added amenities, such as better seats, in-flight entertainment, power ports for computers, or WiFi, unbundled other services such as lounge access, advance seat selection, checked baggage, priority boarding or fast lane security access, and sought to offer consumers more transparency among fare choices with fewer restrictions on refunds or exchangeability, varying frequent flyer mile awards and other bundled benefits. Price transparency alone

is no longer enough to make an informed choice - true transparency means disclosing price along with the corresponding product information. The shift from EDIFACT to XML has made it possible to provide true price and product transparency on airline websites. Resolution 787 is intended to help pave the way for that same shift in the travel agency distribution channel.

The marketplace pressure for true price and product transparency is irrefutable. Each of the major GDSs has taken steps in this direction. Sabre Red, Travelport's Agencia and Amadeus Airline Retailing Platform - all in early stages - boast at least partial solutions. Other technology service providers such as Datalex, FareLogix and others are also responding to the demand for new solutions. In the absence of an industry standard, progress has been painfully slow, reportedly expensive and very uncertain. Bringing the industry together now to standardize an XML data format for these and other service providers will provide some assurance that no one is investing in Betamax in a VHS world, or DVD in a Blu-Ray market. It will propel the development of further solutions and escape the inefficiency of customized, one-off programming efforts.

## **II. RESOLUTION 787 ALSO CONTAINS A VISION FOR THE FUTURE**

While DOT should not ignore the aspirations of IATA's NDC described in Resolution 787, its review of Resolution 787 should be on its own terms. The industry is hopeful that new XML data formats will aid in expanding to the travel agency sales channel essentially three broad benefits already found on some airline websites: (1) allowing a customer to shop, select and purchase ancillary services or fares packaged with ancillaries, (2) the ability to see and weigh differences in competing products, such

as more leg room, lie-flat premium seats, in-flight entertainment or WiFi along with price, and (3) customized service and amenity packages and pricing based on attributes such as loyalty program status that the customer is willing to share in the shopping process. But full development and testing of the XML standard is expected to take at least a full year to complete, after which it will be up to the marketplace to make the investments necessary to adopt and implement its use.

### **III. CONTENT OF RESOLUTION 787**

Much has been said about Resolution 787 since it was approved by the Conference in October, 2012, making it worthwhile to examine its wording and intent more closely. At its core, Resolution 787 is designed to support the development of an open XML-based data exchange standard to complement the existing TELETYPE and EDIFACT data exchange standards, which are already managed by IATA for the airline industry. Much in the same way paper tickets and electronic ticket standards co-existed for many years, today's EDIFACT-based data standards will continue to exist and be supported pursuant to Resolution 783 until there is such widespread adoption of the new XML standard that support for the EDIFACT standard can be ended without disruption to the industry. In the most optimistic scenarios, that is expected to take many years.

There are two essential goals in drafting the XML data standard: 1) ensure that the data specification accommodates all of the business functions any stakeholder might want to use, as far into the future as we can reasonably predict, and 2) attempt to standardize the format for any data any stakeholder might request and choose to use. This effort to establish standards has led to some misconceptions about Resolution 787.



A careful reading of the Resolution shows that it specifies only a few broad principles which apply only if an airline chooses to use them, and if passengers are willing to respond. Resolution 787 sets forth some of the standard business processes that are anticipated in an NDC environment and sets the broad parameters of what communications capabilities the industry requires should participants in the distribution system pursue new approaches.

#### **A. Detailed Description of Resolution 787**

The following sets forth a section by section description of the Resolution:

##### **“Resolved”**

The first paragraph captures the essence of Resolution 787. It makes it clear that airlines are free to decide whether or not to distribute enhanced content (such as ancillaries) through multiple channels of distribution. If an airline chooses to distribute enhanced content through both direct and indirect channels, it is expected to work within the data formats to be developed pursuant to the Resolution in order to achieve the intended standardization and efficiencies. However, Resolution 787 does not obligate any IATA member to implement the provisions in whole or in part. Nothing in the Resolution compels conversion to the use of XML. Further, the functionality of the standards may go beyond the needs of some or all airlines. The standards will be followed and used only to the extent they are perceived as useful and effective by airlines and intermediaries acting on behalf of their customers.

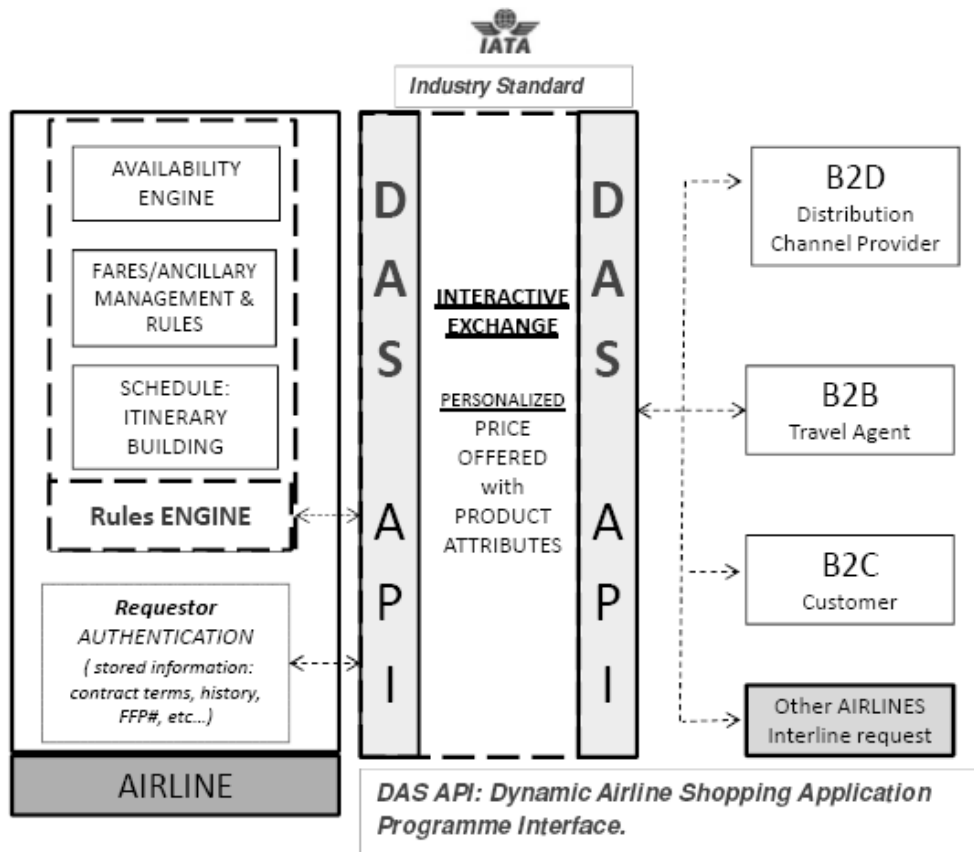
#### **1. Objectives**

Section 1 of the Objectives sets forth the scope of the Resolution as well as the key principles that constrain the development of the standard. Sections 1 and 1.1

provide a general introduction and describe one anticipated business model in which the pricing and product offer is assembled dynamically by the airline upon request, rather than using central static databases for prices and schedules that are not flexible enough to meet the new demands of combined product and price transparency.

Section 1.1 also includes a diagram of the Distribution Capability Landscape.

The diagram depicts one example of a system architecture that could be used to apply the XML standard. It shows the relationship between one airline in dialogue with various shoppers or shopping intermediaries using the proposed messaging standards. It should be noted that this representation is only an example of a hypothetical single airline's potential architecture, and something equivalent would be replicated by any airline choosing to implement enhanced content distribution to multiple channels. The diagram is shown as follows:-



On the left hand side, the box represents an airline's internal product and pricing process. This example of a system architecture includes a rules engine and internally managed databases used to formulate a response to a query received in the specified data format. In this example, the airline manages its own data and constructs a response to each request, which could be simply price and schedule, or much more robust, providing product offers based on information the traveler has chosen to share. There are likely other system architectures that could take advantage of an XML-based standard.

On the right hand side are a number of boxes representing the divergent sources from which a request for a product offer could originate – a distribution channel

intermediary, a travel agent, a customer or another airline. What is important to note is that each airline will respond with only its own offer. There will remain an essential role for intermediaries competing to provide an application (a Dynamic Airline Shopping application) using the new data standard to make requests, receive all airline responses, organize them for comparison and shopping by the traveler or travel agent, and provide the booking, payment and post-sale functions. The connection to these intermediaries is indicated in the diagram as the layer labeled “Dynamic Airline Shopping Application Interface (DAS API)”. The efficiency of these processes is dependent on the standardization of the various messages used to pass requests and replies back and forth among hundreds of airlines and directly or indirectly to thousands of travel agents.

Section 1.2 sets forth certain Key Principles for the development of the XML standard.

- Sections 1.2.2 – 1.2.3 state the intention to develop data standards in XML that will enable third parties to access airline content directly from the carrier, and to rely on the PADIS Board message standards established under Resolution 783 for transmission of data.
- Section 1.2.4 states that IATA will not constrain the new standard by attempting to make it backward compatible to the existing EDIFACT-based networks. New XML standards should attempt to accommodate as many business objectives and applications as possible without limitations arising from the old system. Nothing prevents third parties from developing backward compatibility, and the Resolution provides the freedom for

airlines to distribute their content through the legacy networks, use the new XML standard, **or both**. We anticipate that this hybrid approach will continue for some time by many airlines. IATA intends to maintain the EDIFACT standard as long as it remains relevant to the industry.

- Section 1.2.5 outlines some key new functionality and consumer benefits the XML data standard is intended to enable, including:
  - Section 1.2.5.1 – allow custom pricing and product offers based on information provided by the consumer
  - Section 1.2.5.2 – facilitate a shopping basket approach allowing customers to choose the products and amenities they want with corresponding price information
  - Section 1.2.5.3 – ensuring support for new products and amendments to existing ones
  - Section 1.2.5.4 – a transparent display allowing price and product comparisons
  - Section 1.2.5.6<sup>1</sup> – defines authentication of the party asking for a customized offer
  - Section 1.2.6 – encourages distribution across all channels (subject to airline requirements for access to this content)
  - Section 1.2.7 – states that the model shown assumes the airline distributes only its own products and prices with full control of its price and product content

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<sup>1</sup> A numbering error omitted a section 1.2.5.5

- Section 1.2.8 – recommends standardized structures for product attributes to facilitate comparison shopping among airline offers
- Section 1.2.9 – makes express that non-participant airlines will not have to contribute to meeting the costs of developing the standard

## **2. Definitions**

This is a standard section providing clarity to the terms used in the Resolution.

## **3. Business Process Description**

Section 3.1 of Resolution 787 contains a description of the authentication and shopping process. It specifies three requirements that the shopper's request must include:

- 3.1.1.1.1 – data to identify who is making the request when an intermediary is present,
- 3.1.1.1.2 – data to identify on whose behalf the request is being made, and
- 3.1.1.1.3 – elements of the requested trip.

Each of these sections of the Resolution contains non-mandatory examples of data elements the new standard should accommodate. There is nothing new or novel about them, and all are part of the current shopping process. Travel agents or other intermediaries must be authenticated users of the systems to make requests to a GDS. Second, the current systems requests for fare and schedule information identify at least whether it is for an adult, child, senior, in some cases a member of the military on active duty or other traveler with a promotion or discount code. Some systems may default to "adult," but information in this category is always included to attempt to provide the best

applicable fare for the specified traveler. The new standard is intended to accommodate either this 'anonymous' shopping request or customized offers if more information is provided by the consumer. Third, some details of the intended trip such as origin, destination and dates of travel are of course necessary to create a proper response.

Some critics have argued that the specific examples listed under each of these requirements are also intended to be mandatory. Those criticisms are not supported by the language of the Resolution. The three obligatory general categories are introduced as follows:

“The request **shall include** but not be limited to:” (3.1.1.1.) (Emphasis added.)

In contrast, the lists are examples of potential data elements, and are always introduced as follows:

“Data **may include** but not be limited to:” (3.1.1.1.1. Repeated in 3.1.1.1.2, 3.1.1.1.3) (Emphasis added).

Thus, what is new is that the proposed XML standard will allow much more data to pass between the customer and the airlines, via an intermediary, if both choose to use it. The list of attributes about a passenger contained in 3.1.1.1.2, Name/Age/Marital Status, Contact Details, Frequent Flyer Number or Profile number, Customer Type, Travel History, Nationality, Shopping History, Previously Purchased Services are all only fields in the data specification that will be considered for inclusion in the standard (“may” include). All of those attributes, and perhaps others, are elements of data an airline might want, and a shopper might be willing to give, to contribute to a more customized shopping experience, but nothing will require all of the defined data fields be

used. The standard should accommodate those data fields, but none are prescribed as mandatory by Resolution 787.<sup>2</sup> In short, the new data specification will continue to support “anonymous” fare quotes.

In fairness to some critics, Resolution 787 is focused on the desired new capability the XML standard would support and simply assumes the co-existence of current business processes. To be clear, Resolution 787 is intended to add new capabilities to the existing marketplace. Again, anonymous shopping requests will be supported in the new data standard, and the current EDIFACT system will be maintained in parallel. Further, neither Resolution 787 nor IATA is attempting to dictate how the distribution market will evolve in the future or who the industry stakeholders will be and what and how they will charge for their services. Those developments will be controlled by the market. Resolution 787 simply outlines a path to update an outdated data exchange standard to support the business processes envisioned by NDC. Whether distribution incumbents or new entrants are able to leverage these new capabilities to enhance or sustain their business model is left to the marketplace.

- Sections 3.1.2 and 3.1.3 contain descriptions of technical processes for order and change processing, in some cases using the same syntax of non-mandatory lists of examples to help clarify the principle.

#### **4. Attachment A**

This section describes the governance process by which IATA will work with all industry stakeholders to ensure a consistent approach to the development of the

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<sup>2</sup> As a practical matter, certain data fields, such as origination and destination, must be used to generate a fare quote. Other fields, such as passenger attributes, could be set to a default as is often the case today.



standards. The top of the governance structure is the Joint (A4A/IATA) Passenger Services Conference. The Resolution creates the Passenger Distribution Management Group (Management Group) to provide a strategic direction, and the deliverable is a Passenger Distribution Implementation Manual that will contain process flows, recommended practices, technical specifications, implementation guides and service level templates. The Passenger Distribution Implementation Manual is expected to be the XML counterpart to the existing A4A/IATA Reservations Interline Message Procedures – Passenger manual for EDIFACT data standards that IATA has updated and published for over 30 years.

#### **IV. PROCESS AND PARTICIPANTS**

The IATA Board of Governors endorsed an initiative to facilitate NDC in 2011. The IATA Passenger Services Conference assumed responsibility for developing standards to facilitate the NDC process consistent with its historic role in standardizing communications codes and protocols for interline, passenger-related communications. Under governance of the Conference is the Passenger Distribution Group (PDG) consisting of high level airline marketing executives from 11 airlines.<sup>3</sup> The PDG was charged with “defining the [NDC] vision” in order “to increase competition, stimulate innovation, reduce distribution costs and improve consumer choice.”<sup>4</sup> PDG initially

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<sup>3</sup> Those airlines are Air Canada, Alitalia, United Airlines, Inc., Delta Air Lines Inc., Air France/KLM, British Airways p.l.c., Deutsche Lufthansa AG, Swiss International Airlines Ltd, Korean Air Lines Co. Ltd, Cathay Pacific Airways Ltd, and Singapore Airlines Ltd. The first PDG Chair was Andrew May, British Airways; the current Chair is Graham Wareham, Air Canada. The Secretary is Eric Leopold, IATA Director Passenger.

<sup>4</sup> See “Report – Passenger Distribution Group (PDG)” that is among the attached conference documents. The Terms of Reference of the PDG are attached to that report.

concluded that a “foundational standard” incorporated in a Passenger Services Conference Resolution was an essential first step in advancing NDC.<sup>5</sup> That step now has been put in place by Resolution 787 adopted by the Conference on October 19. The Passenger Distribution Group created the Distribution Data Exchange Working Group (DDXWG)<sup>6</sup> where the detailed technical work is taking place. Because the standard must support the business processes at each step in the distribution chain, in addition to airline representatives the DDXWG includes the major GDSs, travel agents and their associations as well as existing and new entrant technology providers.<sup>7</sup> It is essential that their input shape the standard. If the standard fails to support an essential business process for any one of these stakeholders – for instance travel agency CRM needs or the ability to service the booking after it has been made –the standard may not be widely adopted and the initiative will fail to deliver on its essential goals.

Accordingly, the DDX WG cast a wide net. The first meeting of the DDX WG was attended by 48 representatives, not including IATA employees, and included airlines, all three major GDSs, online travel agents, and a variety of technology service providers to the industry. The second meeting had 62 participants, many of the same, but adding

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<sup>5</sup> Report – Passenger Distribution Group (PDG).

<sup>6</sup> The DDXWG, formed by the PDG, convened its first meeting on 13 July 2012. Its second meeting was held 27-30 November 2012.

<sup>7</sup> Non-airline stakeholder participants have included Advantage Travel Centres Ltd, Amadeus, ARC, ARTA, ATPCO, BCD Travel, Billetkontoret, Dertour GmbH & Co. KG, Farelogix, Google/ITA, Hewlett Packard, HitchHiker, Indra, ISO, Key Travel, Navitaire, NIIT Technologies, OAG, Reisebuero Buehler, Sabre, SATA, SITA, Travelport, and Unisys, among others.

traditional travel agencies as well. IATA anticipates continuing this broad participation throughout the process to ensure the most robust, workable standard is achieved.

**V. Request for DOT Approval**

IATA is submitting Resolution 787 for approval under Part 303 of the Department's regulations. IATA believes that Resolution 787 could have been filed for information only under DOT Order 2012-4-18 (Tier 1). In fact, Resolution 787 is principally an articulation of goals and a template for future work and has no immediate effect on airline distribution practices, competition or passengers. Nevertheless, IATA recognizes that movement toward any significant coordinated change in the technical standards for selling airline services is likely to warrant fuller scrutiny by the Department and may create uncertainty and concern among those business entities vested in, and benefitting from, current practices. By submitting Resolution 787 for approval, IATA seeks to make clear that it is both pro-competitive and pro-consumer and to allow DOT to approve it after hearing from all interested parties. Having DOT's imprimatur by approval will give added impetus to and confidence in the ongoing efforts of the Passenger Services Conference and restrain those who might otherwise seek to obstruct those efforts by threatening adverse legal or regulatory actions.

Section 41309(b) of the Transportation Code requires the Secretary to "approve an agreement ... when the Secretary finds it is not adverse to the public interest and is not in violation of the Act." Because there is no discernible basis on which Resolution 787 could be found in violation of the Act, the determinative public interest issue is whether harmonizing standards and procedures under Resolution 787 promotes or unreasonably restrains competition in air transportation. That issue does not turn on

whether the modernization of technological capabilities could disturb those vested in existing distribution practices but whether this industry initiative advances the interest of the traveling public. The answer to that inquiry is a resounding “Yes!”

- Resolution 787 supports enhanced consumer choice and offer comparison: By modernizing the messaging standard, it will ultimately enable consumers to have seamless access to airline offers that they can compare and purchase from a single source. Passengers can receive special offers based on information they provide, their purchasing history and/or stated preferences.
- Resolution 787 supports competition among airlines: It will enable increased competition among airlines seeking to entice customers with enhanced service offerings in addition to price. Competition generally results in lower prices and better service for end users.
- It Resolution 787 will help open the existing distribution market to strong competition from new entrants using the more robust and familiar XML data format standards. We anticipate new entrants will include established (e.g. today’s GDSs and IT suppliers) and start-up technology companies that are prepared to deliver XML based applications to support travel agent and consumer needs for organized and transactable comprehensive airline offers.
- Resolution 787 will help enable travel agents and others in the distribution chain to evolve to better meet customer needs: The resolution does not seek to eliminate key airline distribution incumbents. Rather, consumers will still use the services of agents to sort through their significantly increased options, prices and bundled packages. Business will still be able to use the services of business

travel centers to administer their contract rights, make bookings and provide accounting control. Agents and business travel centers will be able to use the services of aggregators, including GDSs, to enhance their ability to compare airline offers.

In short, approval of Resolution 787 would be an important milestone on the road to a more robust, passenger-centric airline distribution system. Resolution 787 should be approved promptly so that all industry participants can be confident that the new technical standards will be available to support innovative developments in airline distribution.

Respectfully submitted,

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