

## Simplifying the Business IATA e-services Airline Guide to EMD Implementation

Effective 1 July 2010







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## CONTRIBUTIONS

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## **GLOSSARY OF TERMS**

TERM	DEFINITION	DESCRIPTION
		Manages the standard for reservations
	Airline Interline Message Procedures	messages
ARC	Airline Reporting Company	ARC provides the same service as BSP in the USA
ARNK	ARrival Not Known	A break in the documented itinerary that reflects either a surface segment or different airports in the same metropolitan area
ASVC	Additional Services	Reservations keyword. Please refer to AIRIMP section 2.11.6 for a full list of keywords and their uses.
ΑΤΟ	Airport Ticket Office	Airline ticket desk at an airport
Base Fare		The price of the service excluding any tax, fee or charge
BSP	Bank Settlement Plan	BSP handles the reporting and remitting procedures between IATA accredited travel agencies and airlines
сто	City Ticket Office	Airline ticket desk in a town centre location
CUSS	Common User Self-Service	Self-service check-in machine that serves more than one airline
DCS	Departure Control System	System used by the airlines to prepare a flight and process passengers
DISH	Data Interchange Standards Handbook	Manages the standard for data interchange between the GDS and the DPC
DPC	Data Processing Centre	Regional data centres handling BSP processing



EDB	Electronic Database	records
EDIFACT	Electronic Data Interchange for Administration Commerce and Transport	Based on UN protocol, format for the data exchanged between key players in the ET and EMD process
EMD-A	Electronic Miscellaneous Document - Associated	An EMD that is lifted with the associated ET
EMD-S	Electronic Miscellaneous Document – Stand-alone	An EMD that is used independently of an ET
EMDWG	Electronic Miscellaneous Document Working Group	A sub-set of JPTC working on the detail of the EMD standard
ET	Electronic Ticket	Electronic flight documents that replaced a paper tickets
Flight Coupon		Forms part of an ET and is used for passenger transportation
FIM	Flight Interruption Manifest	Document to facilitate easy transfer of passengers to another flight during irregular operations
FOID	Form of Identification	ID that indentifies the passenger at check-in. In most cases this will include a photograph, but not in all.
Functional Specification		A document detailing the detailed requirements needed to develop the EMD product
GBR	General Business Requirements	Document agreeing the business rules between two interline partners
GDS	Global Distribution Systems	Computer system that provides the travel agent with reservations and ticketing facilities as well as back office functions
GSA	General Sales Agent	Company appointed to act on behalf of an airline.
НОТ	Hand-off Tape	Data delivered by the DPC to an airline detailing travel agency transactions

ICH	International Clearing House	IATA established service to process payments between airlines
		A system for the electronic billing and settlement of ET flight coupons and EMD
IDEC	Interline Data Exchange Centre	value coupons
		Where the usage of an EMD coupon is
		by a carrier other than the Validating
Interline		Carrier
		Document used today to account for
мсо	Miscellaneous Charge Order	miscellaneous services e.g excess baggage residual value
	Micconario de oriargo order	Suggugo, roomaarvarao
	Virtual Missellansous Charge Order	A paperless version of MCO with no
	Virtual Miscellaneous Charge Order	
	Must have this	
	Should have this if possible	A prioritisation technique used in
		business analysis and software
	Could have this if no adverse impact	understanding with stakeholders on the
MoSCoW	Would like this in future	importance they place on the delivery of each requirement
Online		Where the usage of an EMD coupon is by the Validating Carrier only
		by the validating daniel only
	Dessenger and Airport Data	Manages the standard for the data
PADIS	Interchange Standards	ET and EMD process
		held in an airline reservations application
PNR	Passenger Name Record	or GDS reservation system
		Notification via Teletype of any other
		means that a person in one location has
ΡΤΑ	Prepaid Ticket Advice	person in another location
		Data file detailing all travel agency transactions submitted by the GDS to the
RET	Reporting Tape	DPC for processing
RFIC	Reason for Issuance Code	A single character code that defines the

1<sup>st</sup> edition – July 2010 - <u>www.iata.org/stb/e-services</u>

		reason for issuance of an EMD
RFISC	Reason for Issuance Sub-code	A three character code that qualifies the Reason for Issuance Code
ROI	Return on Investment	Part of business case to measure financial return on invested capital
SAC	Settlement Authorisation Code	Confirmation reference given by the Validating Carrier for a coupon in final status to agree settlement
SSR	Special Service Request	Used to request, reply or advise document number for a flight related additional service
StB	Simplifying the Business	IATA initiative to reduce costs for airlines and improve service to passengers
SVC		Auxilliary service element used to request, reply or advise document number for a non-flight related additional service
System Provider		Computer system that provides reservations and ticketing facilities as well as back office functions
TSR	Ticket Sales Return	Record of accountable document transactions from airline office to airline revenue accounts.
TTY	Teletype	A message not sent in real time
Value Coupon		Forms part of an EMD and is used to handle sundry and ancillary services, not applicable for passenger transportation
Validating Carrier	Numeric airline code which precedes any ET or EMD document number	Carrier acting as controlling entity for the EMD or ET. Carrier receiving final Display request between different operating/marketing airlines systems. and ground handlers.



## 1. FOREWORD

In developing and enhancing the IATA standard for electronic miscellaneous document (EMD), it has become apparent that there are a number of items which, whilst not appropriate for inclusion in the text of the standard, are fundamental to obtaining a clear understanding of how EMD can be implemented.

Further, given the variety of stakeholders, there appears to be significant benefit in documenting various aspects of the overall processes to promote a common understanding and standardized approach to EMD implementation.

Consequently, this 'Implementation Guide 1<sub>st</sub> Edition' provides clarifications and explanations of the functioning of the electronic miscellaneous document (EMD), as well as guidelines, checklists and best practices. This publication is intended for the project manager in charge of the implementation of EMD at an airline.

Specifically, it should be noted that this publication is not a binding document - the formal texts relating to EMD are contained in the appropriate Resolutions and Recommended Practices adopted by the IATA Passenger Services Conference.

Any comments, suggestions or proposals for enhancements, especially best practices, are welcome and should be directed to:

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Contact: EMD@iata.org

For more information on EMD please refer to: <u>http://www.iata.org/stb/e-services</u>

Versions

Number	Effective date	Content
1	July 2010	1 <sup>st</sup> Edition EMD Implementation Guide

## 2. INTRODUCTION

This section contains information on the EMD project background and benefits to industry stakeholders and passengers.

## 2.1. About Simplifying the Business

E-services project is one of the initiatives of Simplifying the Business (StB), a cost reduction, change management programme IATA's Board of Governors voted as one of IATA's top priorities for 2005 and beyond.

IATA is "Simplifying the Business". We are challenging ourselves as an industry to find cost reduction possibilities in our industry's complex processes. While today's consumers expect convenience, they are not willing to pay for the complexity that makes it possible. The answer lies in simplifying processes and making the most effective use of existing technology.

IATA's role as a leader of change is to bring all of the parties together with a common vision to develop industry-wide standards. Additionally, working closely with our technology partners, IATA will ensure that all parts of the world have the support necessary not only to keep pace with, but also to benefit fully from change.

Why "Simplifying the Business"? Because making a more efficient travel experience for everyone will benefit both the industry and the customer. The aim is to improve customer service whilst saving the industry up to US\$16.8 billion in annual costs.

With that original goal, IATA concentrated its efforts on core projects:

- Bar-Coded Boarding Pass (BCBP)
- IATA e-services
- IATA e-freight
- IATA Fast Travel
- Baggage Improvement Program

Delivering these projects is of paramount importance to our member airlines. In 2008, ET, CUSS and RFID were closed while two new projects were launched: Fast Travel and Baggage Improvement Programme. In June 2010 Automated Carrier Baggage Rules Project was launched.

## 2.2. How IATA supports airlines

In order to support airlines and stakeholders in the implementation of the initiatives, IATA's StB team has developed a support model (see fig. 1) that includes matchmaking with industry suppliers, events, materials, industry campaigns, consultancy and a help desk. Information can be accessed through a portal (see fig. 2) and a knowledge base (see fig. 3). The portal provides links to materials, reports, campaign results and matchmaking. The knowledge base contains Frequently Asked Questions (FAQ) and allows visitors to log an enquiry that will be answered by industry experts.







Figure 2 - Welcome page of the StB Portal

About Us i Membership i Work Groups i Areas o	f Activity I Services & Solutions I Events I Training I Pressroo
IATA by Region : Careers : Customer Service	
Home » Simplifying the Business » FAQ	
StB FAQ Knowledgebase	
Should the FAQ Knowledgebase not provide the answer you a	are looking for please contact your StB Country Representative
FAQs S	earch Home
Find FAOs	
Search for: *in All FAQs	Find FAQ
Search FAQs	
All FAQs	
BCBP - Bar Coded Boarding Pass BCBP Standard, Industry trend & business case, Airport infrastructure & process, Acceptance at security, Electronic / mobile boarding pass	IATA e-freight Standards, General, Technology, Processes, Others
Baggage Improvement Programme (BIP) Airports, Airlines, Baggage problems, Solutions & RFID	Fast Travel Basics, IATA's role, Industry trend
CUSS CUSS explained, Benefits of CUSS, Where CUSS is available, Technical questions, IATA's role in CUSS	Uncategorized



## 2.3. IATA e-services project

#### 2.3.1. The Problem

Paper miscellaneous documents issued by airlines – like excess baggage tickets and lounge access vouchers – require legacy paper processes and infrastructure to be maintained. That adds cost and complexity to industry distribution systems. Paper documents must also be collected from airline ticket offices, causing inconvenience for passengers. Travel agents are unable to sell these services, restricting market access.

#### 2.3.2. The Solution

The IATA e-services project will replace these paper miscellaneous documents with electronic versions according to a global IATA electronic miscellaneous document (EMD) standard. IATA e-services is the last step in IATA's e-travel vision, which is paperless travel for airlines and passengers. E-ticketing was the first step towards e-travel. Removing paper tickets in 2008 led to the second step, the introduction of mobile bar coded boarding passes. The third and final step is e-services, by the end of which airlines will not issue any paper documents to passengers and will remove all paper from its infrastructures.

EMDs are designed to work like electronic tickets (ETs). The documents are stored electronically in the issuing airline's database. Usage can be tracked just like flight coupons in an electronic ticket. The EMD can be used to collect charges for all types of services. They can also be used to collect amendment fees, excess baggage charges, and to issue refunds.

## 2.3.3. The Business case

The two business case drivers are (1) cost reduction - through elimination of paper documents and automated, streamlined processes - and (2) revenue generation - through additional services sales in indirect channels - as outlined below.

Drivers	Benefits (Savings / Revenues)
1- Cost reduction - Elimination of paper documents (MCO, MPD, Excess Bag Tickets), automated streamlined processes	\$450-\$900m
2- Revenue generation - Sales of additional revenues through indirect channels (1% increase)	\$2bn
TOTAL	\$2.45-2.90bn

#### Cost Reduction:

The original IATA Board's vision, in 2004, was to create a paperless environment by phasing out paper tickets and other paper documents. ET enabled eliminating the majority of paper volumes, but the paper processes remain in place as long as miscellaneous documents are paper based. EMD extends ET into the remaining paper documents to achieve totally electronic processes. Paper processes have not been replaced after the elimination of paper tickets. As long as there is still one piece of paper lifted in the system, it impacts not only the front-end but also all the airline infrastructure through to revenue accounting (whether interlined or not). Thus the airlines have to maintain legacy paper processes and systems.

Most carriers that implemented ET still operate a paper infrastructure to handle miscellaneous paper documents. The number of paper transactions however went down. The unit cost savings for processing a paper document should hence be higher than in the ET case (US\$9). The IATA Ticketing Group indicated mixed answers, either confirming the US\$9 or finding it overstated.

Based on a sample of airline feedback from IATA Ticketing Group, a rough estimation shows a volume in excess of 100m paper documents: This business case will consequently use a range estimate for the unit cost saving: between \$4.5 and \$9, leading to annual saving of \$450-\$900m.

#### **Revenue Generation:**

Low Cost Carriers have generated up to 20% of their revenues, with a high margin, from ancillary services. Some IATA airlines members offer similar opportunities to book and pay for additional services via their own websites using proprietary solutions. However only 4 % of miscellaneous documents are currently generated through indirect agents as outlined below.

Channel	MCO/MPD volume (share %)	Comments
Indirect (agents)	4m (4%) (source: IATA BSP)	Absence of EMD in GDS / BSP
Direct (airlines)	96m (96%) (source: survey EMD Task Force – IATA extrapolation)	Proprietary solutions, no standard. EMD will facilitate and enhance e-commerce sales
Total	100m (100%)	Growth opportunity on both channels

On a global basis, majority of ticket are still sold through indirect agents (agency sales connected to a GDS and reported in IATA BSP): implementing EMD would then enable airlines to sell ancillary services through travel agents or for interline journeys increasing revenues. A conservative projection of 1% increase at industry level by 2013, on a market of (estimated) \$200bn of sales, would amount to \$2bn additional revenues at a high margin.

## 2.3.4. The Benefits

#### For airlines:

As described previously, annual industry-wide benefits between US\$2.4-2.9 billion from:

- Lower costs due to simplified revenue accounting and back office processing. In addition airlines will be able to track and attribute revenues faster and more accurately.
- Increased revenue by selling more services through more channels: a mix of traditional channels (GDS's and travel agents) and new channels (web, mobile phone)

Main benefits of EMD implementation across the industry will be:

- A global industry standard for issuance of document to support sales of ancillary services
- Industry standard solution that delivers a common process across all sales channels
  - Can replace all miscellaneous documents (except FIMs)
  - o Can be interlined to partners
  - o Can be issued by travel agents via the GDS
- More efficient processes and increased back-office productivity
- Increase visibility in Revenue Accounting and Revenue Management (audit, report and control of ancillary services)

#### For passengers:

- More flexibility. EMDs allow passengers to customize their journey, purchasing only the services they value, from fast track security to wifi access
- Easier access. Passengers will be able to purchase services on the web, at a kiosk, on mobile phones, at check-in desks or from travel agents
- Less hassle. These services can now be offered across multi-leg journeys, even those that involve multiple airlines, making life simpler for passengers traveling on alliance or interline partners
- Less stress. No more pieces of paper to lose. And just as ET made changes to tickets easier, e-services will make changes to these services easier

#### For travel agents:

- Access to new opportunities to sell additional services
- Capability to issue and track EMDs via their own systems providing increased productivity, market intelligence, and more efficient corporate billing and control
- **>** Support corporate requirements for tracking and travel budget follow-up

## 2.3.5. IATA's Approach & Targets

With the EMD standard in hand, IATA e-services is using the global Simplifying the Business (StB) network of IATA staff, airline champions, industry experts and strategic partners to mobilize the industry and meet board targets for 100% EMD by end 2013. Airlines mandated IATA to facilitate the implementation of EMD. IATA will lead the project without interfering in the airlines' own commercial policies with the following targets:

- **7** Capability in 6 Global Distribution Systems and 10 airlines end 2010
- 100% industry capability, end 2012
- 100% usage in IATA BSPs, end 2013

## 3. EMD STANDARD SOLUTION FOR AIRLINES

## 3.1. Airline industry trend for ancillary revenues

In 2010 airlines industry weak economical environment following a decade that has seen 9/11, SARS and steep increases in fuel prices, all surviving airlines have rationalized their operations and are entering this period of recession with not much left they can cut without compromising their operational integrity and their competitive position.

As a consequence, we are witnessing a shift in focus from the ability to reduce costs to the attempt to exploit new streams of revenue that do not entail large additional investments or expenditure.

Following the example of low-cost airlines selling around 15-25% of their revenues as ancillary services (see Fig. 4), more and more carriers have started to generate substantial cash-flow from this means as well as profiting from partnership with other companies mainly for the provision of other travel-related goods and services.



Figure 4 - Ancillary revenue as % of total revenue

These revenue streams generated by sources other than the airline fare normally fall under the definition of ancillary revenues. The latest figures from US DOT are showing that the **US airlines** have generated \$7.8 billion of ancillary fee revenue in 2009.

IATA is recognizing this trend and is committed to facilitate revenue improvement potential by implementing the adopted EMD standard across the industry. The IATA Simplifying the Business e-services project was launched also in order to create a paperless environment and align systems toward a single process giving the opportunities to sunset legacy systems and infrastructures.

The **goal of EMD is to be the sole solution for all fees collected beyond ticket and airfares:** it will cover all miscellaneous documents (except FIM - Flight Interruption Manual) and will facilitate their electronic issuance, payment, settlement and reporting in the IATA BSP.

## 3.2. Current MCOs options and limitations

The industry currently uses a mix of paper, non-standard electronic documents and in-house solutions.

The most common uses today for miscellaneous documents are the following:

- **7** Refundable Balance
- **7** Collection of Reservation Change Fees
- **オ** Excess Baggage
- **PTA** (although should be almost eliminated with ET)
- **7** Group Deposits

## 3.2.1. Current Options

With paper still available, some airlines continue to use the MCO (Resolution 725), MPD (Resolution 726) and Excess Baggage Ticket (Resolution 742), which means that they have to maintain costly legacy paper processes and systems.

Other airlines have started to develop and implement their own solutions, this can be either their own version of the EMD or an in-house paperless solution. However both of these can only apply to online, direct sales only.

With no access to paper documents, the travel agent is limited to using semi-automated nonstandard paperless options.

One of these interim options is vMPD, provided via BSP*link*. Whilst providing the user with a means to record the sale, this option does have its disadvantages. It is not integrated with any back office system, therefore the sale is not recorded in the GDS system. It does not provide an update to the GDS PNR and therefore is not known to the airlines through the GDS's infrastructure.

The other interim option is vMCO provided by GDS. This again is a means to an end, but also with disadvantages. Here the integration is better, as it uses the GDS PNR and sales are reported through the normal channels, however, being paperless, usage tracking is not obvious. Moreover it does not allow the selling of all ancillary services.

## 3.2.2. Limitations

These paperless processes are limited in what business they allow airlines to achieve, with no value coupon produced, front line staff are unable to check whether the coupon is available for use and revenue departments are unable to track usage e.g. flown, voided, refunded.

Rather than living with the risk of fraud, some airlines have implemented processes in which they feed a database once they are notified of a vMCO sale, either airline or GDS via the sales report. They then 'mark' the document when used to avoid fraud, but this is a costly and time-consuming exercise and does not help front line staff, as the database information is not available in real time.

Attribution of the value of any of the current options should be achieved via use of the Reason for Issuance Code (RFIC). However, in a paper or semi-automated paperless solution, usage of this



code is not monitored and is subject to misuse. Reports indicate that up to 75% of miscellaneous documents issued carry the RFIC of 'Other', therefore, for Revenue Accounting and Revenue Management purposes, this information is of little value and prevents revenue from being attributed to the correct stream.

For both airlines and travel agents, the current solutions are labour-intensive and complex. Moreover, to the customer, whether that be the travel agent or the passenger, they are confusing, as they can differ depending on which airline they are dealing with.

#### 3.2.3. Interline

The current solutions are not adequate to enable interlining scenario, it is therefore important that airlines consider all current practices before any judgement is made on whether EMDs needs to be interlinable or not.

It is important to remember what we mean by interline:

- **7** Where the Validating Carrier is different from any one of the Operating Carriers
- **7** Where a coupon needs to be uplifted by a carrier other than the Validating Carrier

#### Examples of interline scenario for miscellaneous documents

Consider the usage of miscellaneous documents for excess baggage and for residual value.

For excess baggage:

- If the itinerary is wholly online, but if any one of the segments being documented is operated by another carrier, this is an interline scenario.
- If the itinerary is wholly online and no segment is operated by another carrier, but the document is serviced by an alliance partner, this is an interline scenario.

For residual value:

- If the carrier performing the exchange transaction is not the original Validating Carrier, any refund against the original transaction is the liability of the original Validating Carrier, this is an interline scenario.
- If a travel agent or any carrier other than the carrier performing the exchange transaction wishes to uplift the document as part payment for a new transaction, this is an interline scenario.

#### 3.2.4. Ground Handling

It is also important to consider ground handling. If you use ground handlers today in some locations to handle your ETs, you will also be using those same ground handlers to handle your EMDs. Although not strictly interline, the use of ground handlers will require the development of interline messages.

## 3.2.5. Conclusion

The current solutions are inadequate once your airline needs to:

- **n** Make a sale with more than one service, i.e. more than one coupon
- **7** Distribute via the neutral environment (any GDS and Travel Agency in the world)
- Deliver a service that is interlinable
- Deliver a service ground handled at any given point
- Attribute revenue correctly and
- Absolutely eliminate fraud

## 3.3. EMD as the Solution

The only standardised solution that can provide the complete answer is EMD. It should be in each airlines best interests to move to EMD as soon as possible, eliminating inconsistencies, short-falls and technical complexity, at the same time providing a single solution that is fully interactive, applicable to multiple channels, capable of interfacing with all other impacted systems, providing a means of protecting revenue and providing accurate and robust information on the service sold.

EMD doesn't just replace paper MCOs, EMD extends electronic documentation into all the remaining accountable paper documents, to achieve a totally electronic process. ET has shown that even in the most extreme cases, in stations where there is no network connectivity, or in stations where even there is no electricity, there is a workaround and it will be the same for EMD. It will only be when EMD reaches 100% and the paper infrastructure being eliminated completely, that the cost savings can be fully realised.

## 3.3.1. Withdrawal of Paper

As with ET, EMD will be mandated in the neutral environment and the current semi-automated paperless processes will be phased out as of 31<sup>st</sup> of December 2013. For carriers to maintain distribution via the travel agency community, an alternative has to be in place before this happens.

## 3.3.2. Risks of not Implementing EMD

Even with all of the justification provided above, it could still be tempting to do nothing. However, taking ET as a model, experience has shown that carriers who do not move forward are exposed to a number of risks. The risks involved with not implementing EMD could be as follows:

- **7** Loss of opportunities to fully exploit all new possibilities of revenue generation
- Inable to distribute product through the neutral BSP environment, potentially losing market share
- **7** Loss of opportunities to interline with partners
- Continued abuse of the Reason for Issuance code, leading to revenue not being accurately attributed, which in itself leads to poor statistical information for further exploitation
- Continued poor quality of data to the back office
- Increased cost to maintain paper based processes internally as paper becomes more marginalised
- Increased cost of supplies, as the need for hardware and paper is reduced, mass production is not possible and therefore production of these products becomes a more specialised and costly process, these increases in cost will be passed on to the buyer.

## 3.4. Comparison to ET

The standard for EMD has been drafted by the IATA Joint Passenger Ticketing Committee. To avoid unnecessary cost and complexity, it was designed to leverage much of the work already done for ET.

## 3.4.1. Similarities with ET

There are many similarities between EMD and ET:

- EMD uses the same physical links as an ET. If an airline or GDS already supports ET, they are physically set up for EMD.
- PADIS EDIFACT is the standard protocol for EMD messages, in the same way as for ET. Although EMD will need a new range of message numbers, the majority of the messages will be of the same structure as ET messages, the only difference being in the data content.
- The Multi Lateral Interline Agreements (MITA) or where applicable bilateral interline agreements will govern the acceptance and honouring of EMDs between carriers as they do for all traffic documents. The only addition to this is the need for a technical agreement for IEMD (similar to a General Business Requirements (GBR) document) that will be needed to indicate that systems/carriers can accept and process the EMD messages.
- The Validating Carrier of the EMD holds the master EMD record in the same way as for an ET.
- The Validating Carrier is the sole authorising entity of the EMD transaction request in the same way as for an ET.
- Control of an EMD between the Validating, Operating and Marketing Carriers is managed the same way as for an ET. Requests to use or change an EMD must be sent to the Validating Carrier. Only the Validating Carrier can relinquish control of an EMD coupon to another carrier. Another carrier can only pass control back to the Validating Carrier.
- The control of an EMD between the Operating Carrier and the Ground Handler(s), acting on their behalf, is managed the same way as for an ET. Only the Operating Carrier can pass control to the Ground Handler. The Ground Handler can only pass control back to the Operating Carrier.
- As for ET, the granting of control of an EMD coupon constitutes an endorsement.
- As with ET, it is the responsibility of the Validating Carrier to perform the necessary validations prior to the EMD being issued or modified.
- As with ET, an EMD can have up to 16 coupons (maximum of 4 conjunction EMDs each with 4 coupons).
- Each EMD coupon has a 'Coupon Status Indicator'. All these indicators are the same as those used for ET:
  - $\circ$  **Open** 'O' open for use
  - Interim 'A' Airport Control, 'Y' Refund Taxes/Fees/Charges Only, 'S' -Suspended and 'U' – Unavailable (these interim statuses are applicable to both EMD-S and EMD-A)
  - 'C' Checked in, 'I' Irregular Operations and 'L' Lifted/Boarded (these interim statuses are applicable only to EMD-A)
  - Final 'E' Exchanged/Reissued, 'G' Exchanged/FIM (applicable only to EMD-A), 'F' - Used, 'R' – Refund, 'V' - Void and 'Z' - Closed.



- As with ET, the standard ticketing validations are applicable to EMD, for example:
  - Location and currency validations
  - o Security checks
- As with ET, the standard electronic document validations are applicable to EMD, for example:
  - Does the Validating Carrier have a technical IEMD agreement with the Operating Carrier?
  - When modifying the EMD, are all the coupons selected for modification available for use?
  - When an airline is using a coupon, either for uplift or modification, does that airline have control of the applicable coupons?
- Display criteria for the EMD are the same as for ET. The primary search criterion is the document number and the alternate search criteria are as follows:
  - Frequent flyer reference
  - o Credit card number and passenger name
  - Passenger Check-in Identification type (optional)
- As with ET, when the passenger's name is included in the display request, the passengers surname must contain a minimum of the first two characters
- As with ET, when the Form of Payment is by credit card, the Form of Payment Credit Card Account Number must not be included in the display response. For full details on display, please refer to section 5.2.1
- Retention of EMD data is as with ET data, a minimum of 13 months where there are unused coupons and a minimum of 7 days when all coupons have a final status.
- As with ET the Validating Carrier or GDS is responsible for issuing the customer with an EMD receipt

For full details on passenger notices, please refer to IATA Resolution 725f section 6.2.

Although these similarities allow EMD to utilise work already done for ET, further development is still required and there are some elements of EMD that differ to those of ET.

#### 3.4.2. Differences to ET

There are not many differences between EMD and ET, but some of them are significant:

- **7** The EMD will have a unique form code applicable to all EMD usage.
- The airline designator listed in the itinerary of the EMD will be that of the Operating Carrier and not the Marketing Carrier as with ET.
- Traditional code share is not applicable to an EMD, although for a flight related service a Marketing Carrier will exist.
- ARNK segments are not applicable to an EMD, segment continuity is maintained irrespective of whether the off point of the previous segment matches the board point of the following segment, for example an EMD itinerary would be as follows: MANLHR

LHRCDG MRSFCO FCOORY CDGLHR LHRMAN **S** IATA

> For an ET an ARNK would be present in the itinerary between CDG and MRS to indicate a surface segment and between ORY and CDG to indicate a change of airport in the same metropolitan area. (*This is a recommendation only which is still subject to ratification at IATA Join Passenger Service Conference.*)

A new process is introduced for EMD-A to associate the EMD-A value coupon(s) to the ET flight coupon(s) and to disassociate the EMD-A value coupon(s) from the ET flight coupon(s) via a message known as 'System Update' message. Although the System Update message was included in the standard for ET, it was never used, so effectively it is a new message.

For full details on the associate and disassociate process, please see section 5.1.4.

- The currency of the Base Fare Amount on the EMD will be determined by usage. For those EMDs issued for Additional Services the Base Fare Amount will be shown in the currency of the country of payment.
- To support EMD it will be necessary to upgrade both ET and EMD messages to version 08:1.
- **A** number of new data elements apply to EMD, for example:
  - o Additional Services Filed Fee Amount
  - o Coupon Value
  - o Present To
  - Reason for Issuance Code

For a complete list of these data elements, please refer to Resolution 722f Attachment A

The above differences are some of the key areas for development. There are additional differences, but these only represent exclusions, so should require lesser development:

- **7** EMD does not support Coupon Status Indicators 'X' Print Exchange or 'P' Print.
- The Unsolicited Airport Control, Reservations Change, Redirect Airport Control and Emergency Lock messages are not applicable to EMD.
- As the EMD is issued without specific flight data, there are some exceptions to the display options and the following search criteria are not applicable to EMD:
  - o Date of flight
  - Airline Designator (Operating Carrier) and flight number

The development required to support EMD, to a large extent, will also depend on how an airline wishes to use EMD. The following sections detail everything you need to know about EMD and the things you should consider.

## 4. IMPLEMENTING AN EMD PROJECT

## 4.1. EMD Project for Airlines

## 4.1.1. Getting Started

With the benefits and advantages of developing EMD established in chapters 2 and 3 of this document, it is time to move forward toward implementation.

Choice of EMD System Provider may be an easy one, given that is it likely to be the same System Provider that maintains the ET product. However, it is not obligatory that they are the same and using this document to help understand how EMD works and the interaction required between the ET database and the EMD database, may help that decision.

## 4.1.1.1. Understanding the Business

To start moving forward, the following are some of the things that need to be considered:

- Know your current business understand what sundry and ancillary charges your airline collects today and how they are collected. Establish a clear position on the advantages that EMD will bring to your current business, considering both front and back office
- Know your future business where is your airline looking to generate more revenue, what are the business opportunities where EMD can provide a solution
- Know your distribution channels are the opportunities leveraged through EMD limited to direct channels, if not the GDSs must be considered and involved. Are those opportunities limited to an online environment, if not whatever solution proposed by your System Provider must include, if not initially, the ability to expand into interline
- Know your interline partners do you have IET agreements, and therefore IEMD agreements in place with all the necessary carriers, does the introduction of IEMD change that situation. A roll-out plan should be designed based on the priority of those interline partners.
- Know your systems know how it works and interfaces with other internal systems.
- Know how ET works understand the advantages and cost savings brought about by ET and think about how these could be applied to the remaining accountable paper. Leveraging much of the work already done for ET as the basis for EMD is covered in section 3.4.1.
- Know the costs currently incurred understand the costs of buying and maintaining the necessary hardware to handle the paper documents, costs of the paper itself and the staff required to process the paper, in this respect consider both front and back office
- Establish a business case for EMD there will be a cost involved, but make sure all the benefits of EMD are shown against this, even the hidden ones e.g. the possibilities for revenue generation and better attribution, as well as the overall cost savings. Highlight the advantages and the streamlining of internal processes that EMD will introduce.
- Prepare a draft version of a GBR detailing your business rules that will apply to EMD normally used to as a base for discussion with your interline partners, this document will apply equally as a source of reference for online business, so should be done well in advance of interline.



#### 4.1.1.2. Assessing the Costs

After understanding current business and future opportunities, potential and benefits that EMD can bring, it is important to assess both internal and external costs:

- Assess internal costs, depending on the roll-out plan, some of these may be over an extended period. Implementing a new method to issue and process accountable documents inevitably will require internal costs and the following need to be considered:
  - o Staff resources to include duty travel and training
  - o Development of training material either classroom or computer based
  - IT may differ by airline, but at minimum airline IT will be required to manage the integration of internal applications
  - Website development
  - Upgrade to the back-office processes

Vital to all the above is identifying the internal project team, those key personnel who can present the information required, brainstorm the potential and provide feedback during the process.

For full details on the internal team, please refer to section 4.1.2.1.

- Assess external costs, dependent on the above roll-out plan, some of these may be over an extended period. Whatever the System Provider and whatever the pricing methodology, the following costs need to be considered:
  - o Initial implementation
  - o Transactions
  - o Maintenance
  - Upgrades both the functionality and messaging, to support a full EMD product an upgrade will be required for both ET and EMD messages to version 08:1.
    Note: if your airline elects to only support EMD-S, it may be possible to implement the product without an ET message upgrade.
  - o Support
  - Interline roll-out cost per interline partner. Cost of physical interline connections should be minor, as ET and EMD will use the same physical connection
  - GDS deployment cost per GDS. Cost of physical GDS connections should be minor, as ET and EMD will use the same physical connection
  - Ground handling deployment cost per Ground Handler. Cost of physical connections to the Ground Handler should be minor, as ET and EMD will use the same physical connection

As a general guideline, the cost of implementing EMD solutions should be lower than for ET, due to the infrastructure already in place for ET. Ultimately the investment decision will depend on each airline's Return on Investment (ROI), and each airline's ROI-related decision criteria.

## 4.1.2. Project Management

The implementation of EMD should be a large enough project to warrant a full project life-cycle. Project management is largely an internal issue and airlines will base their management of a project on different criteria. Some airlines will lead the project from the business side, some airlines will lead it from the IT side, there is no right or wrong with either choice and it is something only the airline can decide. It may also be possible to utilise previous experience by assembling some, maybe even all, of the team that managed the ET implementation. For the airlines that cannot achieve this, it may be a completely new team, so familiarisation with the product may take longer and needs to be factored into the project plan.

When initiating this project, airlines should be thinking of the following:

- **7** Determine which department will lead the project
- Allocate a project manager based wholly on airlines own preferences, the project manager may, or may not, have in-depth knowledge of the subject matter
- Identify the internal team
- Identify the external stakeholders

#### 4.1.2.1. Internal Team

As with any large project, there is much interest, both on the development side and the cost side. Internally, a mix of people need to be involved, from the internal stakeholders, those who support the project and ultimately sign-off on the cost, to the project team, those who work on it day-today to ensure the best results and sign-off on the product. Those who make up the project team will vary by airline and the following list suggests those individuals and departments that should be involved and their responsibilities:

- Project Manager a person with established project management skills, who may, or may not, have an in-depth knowledge of EMD. The responsibilities of the project manager may include:
  - Assemble the project team because of the extended period of the project, it may be necessary to ring-fence staff resources for a considerable period of time
  - Create a project plan and timeline identify key events and milestones, based on the roll-out plan, the project may extend over several years
  - Set up a review process hold regular meetings with the project team, maintain regular contact with both internal and external stakeholders - whether by meeting or conference call, review progress and monitor it against the project plan and timeline
  - Agree review and reporting process with external providers draft a reporting plan that incorporates all external system providers, gain a clear understanding of how these external system providers interact with each other and where there are dependencies, above all ensure that no link in the chain is missed. Although, as project manager, overall responsibility remains with the project manager, ensure that where there is more than one System Provider and there is an interdependency between those System Providers, that that inter-dependency is understood and the necessary lines of communication exist.
  - Sign-off requirements with System Provider(s) to avoid any misinterpretation or misunderstanding, it may be better to do this with the cooperation of the Electronic Document Expert or the DCS Process Expert, as applicable.
  - Encourage feedback, both internal and external create an issues log, prioritise issues and maintain responsibility for them until resolution



- Establish an efficient method for keeping other interested parties informed airline executives will almost certainly not attend review meetings or conference calls, but that doesn't mean they are not interested, whenever money is being spent, they will need regular updates on progress and any issues.
- As the project moves forward establish slots with each IEMD partner IEMD implementations can be quite complex to schedule as, for each IEMD partner, there are normally 4 entities that need to be coordinated:
  - Own carrier
  - Own carrier System Provider
  - IEMD partner carrier
  - IEMD partner carrier System Provider

All 4 entities need to be ready to commence at the same time, this is no different to ET therefore previous IET experience would help with this complexity.

- As the project moves forward establish slots with each GDS not so many entities to consider, but equally as complex as it will be necessary consider the following:
  - Each GDS
  - Each market
  - Has the GDS RET been certified in a market
  - Validation of HOT
- Electronic Document Expert a person with experience in electronic documentation. It would be advantageous if this person had also worked on the ET implementation project. The responsibilities of the Electronic Document Expert may include:
  - To be the EMD expert know the product and how it works, have a good understanding of the IATA EMD Resolutions and maintain a clear perspective on when those Resolutions must apply, it would be useful if this also included attendance at Industry meetings
  - Establish the requirements work with internal stakeholders to understand their needs, mediate on what is demanded against what is possible. Input requirements to the Project Manager.
  - Prioritise requirements assess the requirements and apply MoSCoW (or similar) rules to determine priority
  - Review requirements with System Provider as probably the only person who fully understands the intricacies of EMD. This is a key relationship to ensure that the requirements are correctly understood and catered for and that the product delivered meets the needs of the airline.
  - Validate conceptual product review draft and final requirements, input into Product Manager to sign off the final requirements
  - Validate actual product test and sign-off actual product when delivered to the test system
- IT Expert a person with experience of internal systems and interfaces. Representing the technology side, IT may also provide the Project Manager. The responsibilities of IT may include:
  - Validate in-house interfaces know which internal databases process or distribute electronic data and assess which will require access to EMD data, determine if any new interfaces are required as a result of EMD



- Assess capability of in-house interfaces determine whether any upgrade is required to handle EMDs
- Input to project plan feed in any new requirements and expected schedules to the project plan via the project manager
- Revenue Management Expert a person with experience of commercial and revenue requirements. Representing the business side, revenue management may also provide the project manager. The responsibilities of revenue management expert may include:
  - Audit current business provide information on what sundry and ancillary charges are collected today and recognising the benefits and quality of data that EMD can provide, determine how they will be collected on an EMD
  - Identify future business recognise the opportunities that EMD opens up and determine what new business initiatives can be realised as a result, whether this be new sources of revenue or just better quality of data. Draw on the expertise of the sales and marketing team to help with this
  - Establish the requirements work with the Electronic Document Expert to understand EMD and how it fits with the current and future business
  - Interline manage interline relationships and determine the roll-out schedule to feed into the project plan via the project manager
  - Be prepared to compromise as a new product, EMD will need to evolve in the same way as ET has done, therefore it may not be an exact match for every revenue generating initiative at this time. However hold that thought for future development of the EMD standard.
  - Liaise with sales department to make sure that the market is aware of the new sales opportunities.
- Revenue Accounting Expert key to the process, the revenue accounting expert will play a big part in signing-off the project. The responsibilities of revenue accounting expert may include:
  - To be the EMD revenue expert know the product and how it works, have a good understanding of the reporting requirements both for direct and indirect channels
  - Establish the requirements work with the Electronic Document Expert to record any requirements specific to revenue accounting
  - Review internal processes identify revenue accounting processes that will take EMD data and determine if any upgrade is required. Assess the potential of using EMD data in different ways and whether any new processes would be required as a result.
  - Input to project plan feed in any new requirements and expected schedules to the project plan via the project manager and inform of any revenue accounting blackouts that may affect roll-out schedule
  - Validate both conceptual product review draft requirements, input into Product Manager to sign off the final requirements
  - Validate the actual product participate in the testing the product when delivered to the test system. Sign-off the reporting process for both direct and indirect sales.

Revenue Accounting departments need to be aware that processes will need to change to identify usage of EMD via the RFIC and RFISC rather than by the form code. Although this may take some adjustment to revenue accounting systems, the result is greater data richness than was ever possible with MCOs.

**Revenue Accounting plays a major role during implementation** of an EMD project as the final receivers of EMD life cycle.



- To be the EMD expert know the product and how it works, understand where it interfaces with airport processes.
- Establish the requirements identify where changes to the DCS system are required or mediate what is demanded against what is possible in the current DCS environment. It may be better to do this with the cooperation of the Electronic Document Expert.
- Input to project plan if changes are feasible feed in any new requirements and expected schedules to the project plan via the project manager
- Review requirements with DCS System Provider ensure that the requirements are correctly understood and catered for and that the product delivered meets the needs of the airline.
- Validate conceptual product review draft and final requirements, input into Product Manager to sign off the final requirements
- Validate actual product test and sign-off actual product when delivered to the test system
- Create passenger handling procedures for such times as irregular operations and link down,
- Identify stations where the airlines is ground handled and liaise with Ground Handler(s).
- Training Coordinator a person that will determine the level of training required to introduce EMD into production. The responsibilities of the training coordinator may include:
  - Gain insight into the product have a general understanding of EMD enough to assess training requirements
  - Determine training requirements make the decision whether formal classroom training is required or it can be self-taught via a computer module

For some smaller airlines, with fewer resources, it is very possible that a single person may cover more than one role, e.g. the electronic document expert may also be the IT expert. Equally some airlines may elect to have a larger project team. As long as the key responsibilities are covered, both will work.

#### 4.1.2.2. Major External Stakeholders and Responsibilities

- System Provider the company selected to provide EMD functionality, likely to be same as ET System Provider, but not inevitable. The responsibilities of the System Provider should include:
  - Assemble EMD team create a team of people who are fully cognisant of the IATA EMD Resolutions and able to translate this information into a workable product, it would be useful if this also included attendance at Industry meetings
  - Work with hosted carriers a cross section of the EMD team should meet with the airline(s) to gain clear understanding on how the EMD product will be used

- Identify interfacing systems using the information gained from the IATA Resolutions and the hosted carriers, identify where EMD interfaces with other applications such as reservations and DCS and ensure that the project is covered in those departments
- Draft Functional Specification (almost certainly other internal documentation will also be required, but this will depend on the System Provider) – provide a document to airline(s) that details process and rules to prepare, issue, provide information on, service and report an EMD, including interface with other applications
- Draft DCS Functional Specification (if applicable) if also responsible for the DCS application, provide a document to the airline(s) that details process and rules to gain control of the EMD coupon from the EMD server, check-in and board the coupon, set the coupon to flown and/or return the coupon to the EMD server.
- Establish communications protocol (if applicable) if the applications are on different servers and although the links between the different servers will be in place for ET, an upgrade will be required for both ET and EMD messages to version 08:1.

Note: if your airline elects to only support EMD-S, it may be possible to implement the product without an ET message upgrade.

- Create the EMD functional product following sign-off of the Functional Specification, pass to the technical team to code the requirements
- Create the EMD DCS product (if applicable) following sign-off of the DCS Functional Specification, pass to the technical team to code the requirements
- Validate the EMD Product prior to passing to the airline(s) for validation, the new product should be first validated in the System Providers test system
- Validate the EMD DCS Product (if applicable) prior to passing to the airline(s) for validation, the new product should be first validated in the System Providers test system
- When not responsible for all the applications required to provide the full EMD functionality, it should be the responsibility of the System Provider to liaise with and work closely with the other System Providers involved to ensure an end to end product..
- DCS System Provider (if different from above) the company selected to provide EMD DCS functionality. The responsibilities of the DCS System Provider should include:
  - Assemble EMD team create a team of people who are aware how EMD works and are able to translate this information into a workable product
  - $\circ$  Work with hosted carriers to gain clear understanding on how the EMD product will be used
  - Draft DCS Functional Specification provide a document to the airline(s) that details process and rules to gain control of the EMD coupon from the EMD server, check-in and board the coupon, set the coupon to flown and/or return the coupon to the EMD server.
  - Establish communications protocol although the links with the ticketing server will be in place for ET, if using standard EDIFACT messaging an upgrade will be required to version 08:1 for both ET and EMD messages. Note: if your airline elects to only support EMD-S, it may be possible to implement the product without an ET message upgrade.
  - Create the EMD DCS product following sign-off of the DCS Functional Specification, pass to the technical team to code the requirements
  - Validate the EMD DCS Product prior to passing to the airline(s) for validation, the new product should be first validated in the System Providers test system



- **7 Ground Handler** the airline selected to provide ground handling functionality. The responsibilities of the Ground Handler should include:
  - Establish the requirements identify where changes to the DCS system are required.
  - Review requirements with DCS System Provider ensure that the requirements are correctly understood and catered for.
  - Validate conceptual product review draft and final requirements.
  - Validate actual product test and sign-off actual product when delivered to the test system
- Ground Handler System Provider the System Provider of the airline selected to provide ground handling functionality. The responsibilities of the Ground Handler System Provider should include:
  - Work with hosted carrier(s) gain understanding on how product will be used
  - Establish a functional process this may or may not take the form of a formal document and may be the responsibility of the System Provider of the hosted carrier or System Provider of the ground handler, but it is vital that the functional requirements are clear
  - Validate EMD product in ground handling environment prior to passing to the airline(s) for validation, the new product should be first validated in the System Providers test system
- **GDS** providing ET and EMD functionality to the travel agencies, the GDS is an important player. In order to maintain indirect distribution, the GDS must be a part of this process and it is vital that airlines impress upon the GDS the need for them to develop their own neutral EMD product. Each airline will have an account manager for each GDS and, it is important to liaise closely with the GDS account manager for regular updates on the progress of the GDS EMD project. When the airline project has a clear and agreed schedule, it will be necessary to involve the GDS account manager more fully, to discuss an integration schedule.
- Travel Agencies another important player. Airlines need to ensure that the travel agencies have all the information they need to be able to issue EMDs on behalf of their airline.
- Government Departments not necessarily stakeholders in the project, but other important entities not to be forgotten, are the government departments such as security and customs and immigration at the airport. It is expected that EMD will be covered by the agreements in place for ET and that the EMD receipt will cover the documentation aspect. However, it is important to keep these government departments informed, especially at your home base.
- ATPCO again not a stakeholder, but ATPCO is the keeper of the Reason for Issuance Sub-Codes (RFISC). As the RFISC is a mandatory element of the EMD, it is necessary to establish contact with ATPCO to maintain individual airline RFISCs for distribution to other airlines and travel agencies. IATA recommends that airlines utilise this free service to facilitate consistency within the industry.
#### 4.1.3. Impact of EMD on the Industry systems

The diagram below is summarizing the major systems impact when introducing EMD for a single airline network. In interlining environment, the same interaction would apply on for other airlines.



Figure 5 - Impact of EMD on the Industry Systems

#### 4.1.4. Key Project Milestones

Defining project timelines will vary from airlines to airlines depending for example on airlines strategy, resource availability, budget and system provider's slots.

However, here are some of key milestones that need to be performed to implement EMD:

- > Evaluation of EMD business requirements and strategy
- Cost-benefits analysis and business case
- **7** Request from Proposal of EMD Server to system providers or in-house development
- Decision made on provider
- Project roadmap for development
  - Planning impact in other systems (e.g. DCS, Revenue Accounting)
  - Direct sales deployment plan
  - o Travel Agent / GDS / BSP deployment plan
  - o Interline EMD agreement set-up and deployment plan
- Testing and deployment in production
- オ Training (in parallel)

Airline Guide to EMD Implementation

### 4.2. Understanding EMD Resolutions 725 f, g and h

The IATA resolutions defining EMD standard were developed by the IATA Joint Passenger Service Conference the past few years. The key resolutions are:

- Resolution 725f Electronic Miscellaneous Document Airline
- **n** Resolution 725gElectronic Miscellaneous Document Neutral
- Resolution 725h Electronic Miscellaneous Document Ground Handling

#### 4.2.1. Participants in the EMD Process

The same key players involved in creating and handling an ET, are also involved with the EMD, as follows:

- The Passenger the person who is paying the fee, purchasing the service or receiving the credit.
- Validating Carrier the issuing airline whose numeric airline code precedes the document number. The controlling entity for the EMD, also the carrier responsible for storing and maintaining the master copy of the EMD on its database.
- Marketing Carrier for a flight-related service, the carrier marketing the flight in a code share situation.
- Operating Carrier the airline whose Airline Designator is recorded as the service provider on the electronic value coupon(s).
- Travel Agency the company acting as agent on the airlines behalf.
- Ground Handler the 3<sup>rd</sup> party company carrying out passenger handling duties on behalf of the Operating Carrier, using a system other than that of the Operating Carrier.
- Revenue Accounting the department at the end of the chain that captures the sales and processes the revenue.

For the most part the key players have the same role and interact with each other in exactly the same way as they do for ET. However, it should be noted the limited role of the Marketing Carrier for EMD.

#### 4.2.2. Validating the EMD

As we have seen in section 3.4.1 there are many similarities between EMD and ET and, as such, many rules and validations that apply to ET will also apply to EMD. This section will briefly cover these existing processes, but will concentrate more on the new processes that have been introduced for EMD.

Where a specific process exists related to the issuance, display or modification of an EMD, it is necessary to validate all aspects of that process. For the requirements listed in this section and in all the following sections, these validations need to be performed by the Validating Carrier. For requests from the Validating Carrier's own reservations application, exactly where the validations are performed may vary dependent on system architecture, some of them will be performed in the reservations application, some will be performed, or even repeated, in EMD database. For interline requests, some of validating Carrier EMD database. For travel agency requests, the validations will be performed both by the GDS and the Validating Carrier EMD database. In most cases this principle will be the same as that currently in use for ET.

For full details of where validations are performed, please refer to your System Provider.

#### 4.2.3. Basic Elements and Validations

EMD will use a new and **unique form code** and, unlike the various current options, the same form code will apply to all uses of the EMD.

The carrier(s) listed in the itinerary on the EMD will be the Operating Carrier.

The currency of the Base Fare Amount on the EMD will be determined by usage. For those EMDs issued for Additional Services the Base Fare Amount will be shown in the currency of the country of payment.

#### 4.2.3.1. Reason for Issuance Code and Reason for Issuance Sub-Code

Usage of an EMD is identified by a Reason for Issuance Code which details the general use and a Reason for Issuance Sub-Code which details the specific use.

For a full list of Reason for Issuance Codes (**RFIC**), please refer to IATA Resolution 722f Attachment A, mainly summarized in the code description below:

- A Air transportation
- **7** B Surface Transportation /Non Air Services
- D Financial Impact
- E Airport Services
- **7** G In-flight Services

For full details of existing codes Reason for Issuance Sub-Codes (**RFISC**), maintained by ATPCO please go to the following link: <u>http://info.atpco.net/download/OptionalSubCodes.pdf</u> To request additional sub codes: <u>http://info.atpco.net/extranet/optionalServicerequest.htm</u>

#### Example of RFIC and RFISC for excess baggage:

The issued EMD will be identified as follows:

- RFIC: Reason for Issuance Code C (Baggage)
- RFISC: Reason for Issuance Sub-Code 99Z (excess weight)

|

Both the Reason for Issuance Code and the Reason for Issuance Sub-Code are **mandatory** for the creation of either EMD-A or EMD-S.

An individual EMD may only be issued with a single Reason for Issuance Code.

Example where separate EMDs are required:

If a passenger wished to purchase two additional services that were identified by different Reason for Issuance Codes, two separate EMDs would need to be issued, for example :

- Excess baggage allowance Reason for Issuance Code C (Baggage group)
- Upgrade Reason for Issuance Code A (Air Transportation group)

Individual coupons on the EMD may have different Reason for Issuance Sub-Codes providing that those sub-codes belong to the same Reason for Issuance Code group.

#### Example of an EMD with multiple RFISC with single RFIC:

If a passenger wished to purchase two additional services that were identified by different Reason for Issuance Sub-Codes, but they belonged to the same Reason for Issuance group, a single EMD could be issued (provided they applies to 2 different flight segments in the itinerary: see section 4.2.4.1), for example:

- Reason for Issuance Code G (In-flight services group)
  - Coupon 1 Reason for Issuance Sub-Code 0AP (lunch)
  - Coupon 2 Reason for Issuance Sub-Code 0AK (dinner)

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#### 4.2.3.2. Interline EMD (IEMD) Agreement

In an interline environment, as with ET, the presence of a technical IEMD agreement is key to the process, for example:

- Before issuing or exchange/reissuing an EMD the Validating Carrier of the EMD must have a technical IEMD agreement with all Operating Carriers included in the EMD
- Before displaying an EMD, the carrier requesting the display must have a technical IEMD agreement with the Validating Carrier of the EMD.
- Before uplifting an EMD as payment towards a new document, the Validating Carrier of the new document must have a technical IEMD agreement with the Validating Carrier of the original EMD
- Before uplifting an EMD as payment for providing a service, the Operating Carrier must have a technical IEMD agreement with the Validating Carrier of the EMD

Example of interlining Scenario requiring an IEMD and GDS capability

#### • Interlining of Excess baggage:

Itinerary GVAMUCBKK with GVAMUC on airline XX connecting on MUCBKK on airline ZZ: excess baggage charged at CHF 250.00 (RFIC: C – RFISC: 0CZ)

Conditions required:

XX and ZZ have IET and IEMD capability.

GDS capable to issue EMD, possibly even auto calculate the baggage.

#### • Interlining of Residual value :

Airline XX issues an EMD for any residual value (RFIC: D, RFISC: 99I). The Passenger can go to any Travel Agency in the world to use this EMD to pay a ticket on Airlines ZZ.

Conditions required:

XX and ZZ have IET and IEMD capability. This Travel Agency is connected to a GDS that is EMD capable according to Resolution 725g.

#### 4.2.4. EMD Types

There are two types of EMD:

- **7** EMD-Associated (EMD-A) used in association with an ET (and lifted at the same time)
- EMD-Stand-alone (EMD-S) used independently of an ET

The type of EMD used is determined by the airline, with the exception that Industry standards mandate:

- EMD-A is used for excess baggage
- **7** EMD-S is used for residual value, group deposit, amendment fee, refundable balance, unspecified transportation, pre-paid ticket advice, unpaid taxes/fees/charges and airport service fees.

For all other sundry or ancillary charges, an airline can determine what type of EMD to issue, either EMD-A or EMD-S. Sometimes the type of EMD to be issued may seem obvious, but at all times it should be noted that in order to interline these charges, an interline partner needs to be able to accept the same EMD type for the same type of charge.

When determining which type of EMD should be used for a particular service, airlines need to consider the specific life cycle of each EMD.

Example of EMD type choice guided by airlines needs:

In the provision of an in-flight service, where it is necessary to audit the delivery of that service, examples of different types of EMD used:

- If using the EMD-A for in-flight services, because the Coupon Status Indicator of the EMD-A value coupon will be changed to 'F' - used, at the same time as the Coupon Status Indicator of the associated ET flight coupon, it is possible that the EMD-A value coupon could be at final status before the service has been delivered.
- If using the EMD-S for in-flight services, unless the 'Consumed at Issuance Indicator' has been used, which means that the Coupon Status Indicator will be changed to 'F' - used at issuance, there is no automated process to update the 'Coupon Status Indicator' to a final status and the EMD-S value coupon will remain open for use until manually changed to 'F' - used at the time determined by the operating carrier.

It may be possible to trigger the change to final status of an EMD-S value coupon by some other event. It may be worth discussing this with your System Provider.

The type of EMD used may also be linked to the reservations service code used to identify the service in the PNR:

- A non flight related service, identified by the service code SVC, will always require an EMD-S to be issued.
- A flight related service, identified by the service code SSR, either an EMD-A or EMD-S may be issued.

Only one type of EMD can be issued from a single service code entry. After issuance, in order to change the EMD type it is necessary to exchange the document.



coupon.

#### 4.2.4.1. Multiple Services

For both types of EMD, when multiple services are required for the same board and off points (i.e same flight segment) it is necessary to issue separate EMDs.

EMDs issuance for the same board and off points:
Where more than one service is required for the same board and off points, even if those services are defined by the same Reason for Issuance Code, separate EMDs must be issued, for example:
ET itinerary DXBSIN, the passenger has purchased in-flight services dinner and breakfast on the DXBSIN segment, a separate EMD must be issued for each service e.g. 1<sup>st</sup> EMD document DXBSIN for dinner and 2<sup>nd</sup> EMD document DXBSIN for breakfast
ET flight ticket 006 CDGDXBSIN, the passenger has purchased in-flight services movie and lunch on the CDGDXB segment. EMD value document 006 cannot be issued as coupon 1 CDGDXB for movie and coupon 2

In recognition of the fact that a single passenger may, for example, want to purchase the carriage of two bikes or order two breakfasts for the same flight segment, a new data element, Additional Services Number of Services/Fees, has been introduced. This allows for multiple items of the same service for the same flight segment to be accounted for on the same EMD

CDGDXB for lunch, even though the services have the same Reason for

Issuance Code. A separate EMD must be issued for each service.

#### EMD issuance for multiple items of the same service:

Where more than one item of the same service is required for a single passenger, these can be accounted for on the same EMD coupon, for example:

 ET flight ticket 007 MANLHRCDG, the passenger has purchased the carriage of two bikes on both the MANLHR and LHRCDG segments. EMD value document 007 can be issued as coupon 1 MANLHR with the Additional Services Number of Services/Fees data element set to 2 and coupon 2 LHRCDG with the Additional Services Number of Services/Fees data element set to 2.

#### 4.2.4.2. In Connection With

The In Connection With Document Number and In Connection With Coupon Number data elements are used to signify a link to an ET or another EMD. For EMD-A these are a mandatory data elements and the ET number, to which the EMD-A is to be associated, must exist before the EMD-A can be issued. For EMD-S the 'In Connection With Document Number' is not a mandatory data element, but can be used to signify that the EMD is linked in some way to an ET or another EMD.



#### Example of uses of In Connection With data elements for EMD-S:

- An EMD-S for in-flight services, for audit purposes, it might benefit to include the in connection with ET number when issuing the EMD-S.
- Following the exchange/reissue of an ET or EMD, the EMD-S for residual value or refundable balance should be issued in connection with the new ET or EMD issued as a result of the exchange/reissue transaction.

Sometimes the EMD-S will have no functional connection with the ET, as with the example above. In these circumstances it will be necessary for the user to manually add the 'In Connection With' ET number to the PNR in order for it to be recorded on the EMD-S.

Other times the EMD-S will be issued as part of the same transaction as the 'In Connection With Document', as with example 2 above. In these circumstances, the system will need to know the in connection with ET or EMD number in order to complete the exchange transaction and therefore should be able to record it on the EMD-S.

It may be necessary for airlines to ask their System Provider to develop this functionality.

#### 4.2.4.3. Fare Calculation and Coupon Value

The Base Fare Amount is derived from either the value of the Fare Calculation Area or the addition of the amounts listed under Coupon Value.

Fare Calculation Area and Coupon Value data elements are applicable to both types of EMD, but they are mutually exclusive.

When using the **Fare Calculation Area**, systems should apply the same validations as for ET, to ensure that the values in the Fare Calculation Area equal the Base Fare Amount.

### Examples mutual exclusivity of Fare Calculation Area and Coupon Value:

- EMD-S value document 013 BAHBKKSYD, the passenger has purchased dinner on the BAHBKK segment and breakfast on the BKKSYD segment. If the EMD-S has a Fare Calculation Area showing the value of the coupons in a linear string, it cannot also have an individual Coupon Value
- EMD-A value document 014 BAHBKKSYD, the passenger has purchased a movie on the BAHBKK segment and lunch on the BKKSYD segment. If the EMD-A has an individual Coupon Value for coupon 1 and for coupon 2, it cannot also have a Fare Calculation Area.

When using **Coupon Value**, the individual coupon values must equal the Base Fare Amount.

Examples addition of amounts in Coupon Value:

• EMD-S value document 014 YULLONZRH, Coupon Value for coupon 1 is 50, Coupon Value for coupon 2 is 75, the Base Fare Amount must equal 125.



Where the EMD is issued for an additional service, the Base Fare Amount is calculated by taking the Additional Services Filed Fee Amount and converting it into the currency of the country of payment using the Additional Services Filed Fee Bankers Selling Rate. Both of these data elements are detailed in the EMD record at coupon level. When a fare component is calculated over more than one coupon and it is not possible to show the Additional Services Filed Fee Amount and the Additional Services Filed Fee Bankers Selling Rate for each coupon, it is necessary to leave these elements blank for all coupons except the final coupon in the fare component.

#### 4.2.5. EMD-A

The purpose of an EMD-A is to be associated to an ET, therefore the ET must exist before the EMD-A can be issued. An EMD-A can be associated to an ET at issue time or re-associated to the same or different ET at any time after issue.

To identify whether ET and EMD are associated or disassociated, a new data element has been introduced called the 'In Connection with Qualifier'. This data element is a mandatory requirement for an EMD-A.

The Coupon Status Indicator on an EMD-A coupon(s) should be synchronized with that of the ET coupon(s) to which it is associated.

The Validating Carrier of the EMD-A may differ from the Validating Carrier of the ET to which it is associated.

The passenger name on the EMD-A must be exactly the same as the name on the ET to which the EMD-A coupon(s) will be associated.

The Operating Carrier for the EMD-A coupon(s) must be the same as that for the ET coupon(s) to which it will be associated.

Examples of requirement for Operating Carrier on EMD-A to be the same as on ET:

- ET flight ticket 001 DFWLAX, the airline designator of the Operating Carrier for coupon 1 is BB, if the airline designator of the Operating Carrier for coupon 1 of EMD-A value document 001 DFWLAX is BB, coupon 1 of the EMD-A can be associated to ET 001 coupon 1
- ET flight ticket 002 DFWLAX, the airline designator of the Operating Carrier for coupon 1 is BB, if the airline designator of the Operating Carrier for coupon 1 of EMD-A value document 001 DFWLAX is CC, coupon 1 of the EMD-A cannot be associated to ET 001 coupon 1

ET coupon(s), to which the EMD-A coupon(s) will be associated, must not be in interim suspended status.

Example of requirement for coupons not to be in suspended status:

 Coupon Status Indicator for ET flight ticket 009 DFWLAX coupon 1 is 'S' -Suspended, EMD-A value document 009 DFWLAX coupon 1 cannot be associated to ET 009 coupon 1.



ET coupon(s), to which the EMD-A coupon(s) will be associated, must not be in final status:

Examples of requirement for coupons not to be in final status:
<ul> <li>ET flight ticket 001 DFWLAX Coupon Status Indicator for coupon 1 is 'O' – Open for Use, EMD-A value document 001 DFWLAX coupon 1 can be associated to ET 001 coupon 1</li> <li>ET flight ticket 002 DFWLAX Coupon Status Indicator for coupon 1 is 'C' - Checked-In, EMD-A value document 002 DFWLAX coupon 1 can be associated to the ET 002 coupon 1</li> </ul>
<ul> <li>ET flight ticket 003 DFWLAX Coupon Status Indicator for coupon 1 is 'E' – Exchanged/Reissued, EMD-A value document 003 DFWLAX coupon 1 cannot be associated to ET 003 coupon 1</li> </ul>

The intent behind the association of an EMD-A coupon(s) to an ET coupon(s) is that the status of

the EMD-A coupon(s) is **synchronised** with that of the ET coupon(s) to which it is associated.

However please note that in last example above, the Coupon Status Indicator of ET coupon 1 is 'C' - checked-in and, at issuance, the Coupon Status Indicator of the EMD-A coupon 1 will be 'O' – Open for Use or if control has been granted, it will be 'A' - Airport Control. Therefore the status of the EMD-A coupon will remain unsynchronised until the EMD-A is presented for check-in. This type of situation arises because it is necessary to allow a passenger to purchase excess baggage allowance after having checked-in for the flight.

The routing on the EMD-A value coupon(s) must be the same and in the same sequence as the ET flight coupon(s) to which it will be associated.

Examples of requirement for the routing on the EMD-A and to be the same as on the ET:

- EMD-A value document 001 HELBKKSYDMEL coupons 1, 2 and 3 can be associated to ET flight ticket 001 HELBKKSYDMEL coupons 1, 2 and 3.
- EMD-A value document 002 HELBKKSYDMEL coupons 1, 2 and 3 cannot be associated to ET flight ticket 002 HELBKK**BNE**MEL coupons 1, 2 and 3.
- EMD-A value document 011 HELBKK cannot be associated to ET flight ticket 011 BKKHEL

To allow for revalidation of the ET, the routing on the EMD-A value coupon(s) may differ from that on the ET flight coupon(s) for multi airports within the same metropolitan area.

Examples of when routing can and cannot differ:
EMD-A value document 006 GLALHR can be associated to ET flight ticket 006 GLALGW
EMD-A value document 006 GLALHR cannot be associated to ET flight ticket 006 EDILHR



Association is by coupon, therefore the routing on an EMD-A may be a sub-set of the ET itinerary, as long as the principles detailed above are maintained.

Examples of where the routing on the EMD-A may be a subset of that on the ET:

- EMD-A value document 005 BKKSYD can be associated to ET flight ticket 005 LHRBKKSYD for excess baggage i.e. coupon 1 of the EMD-A is associated to coupon 2 of the ET
- EMD-A value document 006 SINSYD cannot be associated to ET flight ticket 006 LHRBKKSYD

Only one ET flight coupon may be associated to an EMD-A value coupon, however multiple EMD-A value coupons may be associated to the same ET flight coupon.

Examples of where multiple associations can and cannot exist:
EMD-A value document 002 SYDLAX coupon 1 for excess baggage and
EMD-A value document 003 SYDLAX coupon 1 for in-flight movie can be
associated to ET flight ticket 002 SYDLAX coupon 1
EMD value document 004 PERLAX coupon 1 cannot be associated to ET
flight ticket 003 PERSYD coupon 1 and ET flight ticket 004 SYDLAX coupon 1

When modifying either the EMD-A or the associated ET it is necessary to disassociate the documents before proceeding with the servicing transaction.

Some systems may allow Reservations Change of an ET without disassociating the corresponding EMD-A coupon(s), please refers to your system provider for full details.

By eliminating specific flight details from the data elements required to issue an EMD-A, it allows usage to be transferred. Provided that the routing is the same, it can be used at a different point in time than originally intended, therefore cutting down on the need for servicing.



#### Examples EMD-A association and disassociation: EMD-A value document 001 JNBSYD coupon 1 is associated to ET flight ticket 001 JNBSYD coupon 1. Passenger decides to upgrade his ticket to a different class which requires the ET to be exchanged, therefore EMD-A 001 coupon 1 is disassociated from ET 001 coupon 1. After exchange of the ET, EMD-A value document 001 JNBSYD coupon 1 can be re-associated to the relevant coupon JNBSYD on the new ET flight ticket EMD-A value document 002 JNBSYD coupon 1 is associated to ET flight • ticket 002 JNBSYD coupon 1. Passenger decides to change his date of travel which requires the ET to be revalidated or exchanged, therefore EMD-A 002 coupon 1 is disassociated from ET 002 coupon 1. After the revalidation or exchange of the ET, EMD-A value document 002 JNBSYD coupon 1 can be re-associated to original ET 002 coupon 1 if revalidated or to the relevant coupon JNBSYD on the new ET flight ticket if exchanged EMD-A value document 003 JNBSYD coupon 1 is associated to ET flight • ticket 003 JNBSYD coupon 1. Passenger decides not to travel and requests a refund on the ET only, therefore EMD-A 003 coupon 1 is disassociated from ET 003 coupon 1. At some later date the passenger rebooks the same journey and EMD value document JNBSYD coupon 1 can be re-associated to the relevant coupon JNBSYD on the new ET flight ticket.

For full details on association and disassociation, please refer to section 5.1.4.

### 4.2.6. EMD-S

An EMD-S is a stand-alone document that can be issued totally independently of an ET. It is not necessary for an EMD-S to include either Sold Destination Airport/City Code or Sold Origin Airport/City Code.

#### 4.2.6.1. Consumed at Issuance

Data elements for an EMD-S include a Consumed at Issuance Indicator, which allows the Validating Carrier the option of designating an EMD-S coupon(s) used at issuance time. Where an EMD-S is issued to represent a payment received and where there will be no further usage of that EMD-S, the Consumed at Issuance Indicator may be assigned.

Example showing when to use Consumed at Issuance Indicator on an EMD-S:
EMD-S issued for reservations change/amendment fee, where the EMD-S has no further usage – 'Consumed at Issuance Indicator' should be set
EMD-S issued for residual value, where the EMD-S has a value that can be used at a later date – 'Consumed at Issuance Indicator' should not be set

When the Consumed at Issuance Indicator is set, the coupon status of the EMD-S shall be changed immediately to final status 'F' - used at issuance time. As a final status, this will render the EMD-S coupon applicable for the next usage report to Revenue Accounts.



Airlines need to determine when the Consumed at Issuance Indicator should be set.

Use of this indicator should be an automated feature based on a particular Reason for Issuance Sub-Code and airlines may want to discuss the need to automate this process with their System Provider.

Systems should allow for the transaction to revert allowing for errors to be corrected, even though the coupon is at a final status. However this should only be allowed before the coupon has been lifted to Revenue Accounts. This in itself may raise an issue and airlines with a global reservations network should consider the timing of the lift process and how this might affect offices in other time zones.

Examples of timing conflict for Consumed at Issuance Indicator:
 For a head office based in Frankfurt, the lift process may be set to Frankfurt time and coupons are lifted at 2200GMT+1 every day:

 If a mistake is made in an office based in Frankfurt at 1200GMT+1, the user has at least 8 hours to correct the mistake
 If a mistake is made in an office based in San Francisco at 1200 GMT-8, the user may have much less time to correct the mistake

Where airlines have a global network, this issue is likely to exist already for the voiding of an ET coupon(s), but it is worth checking that whatever process is in place for ET, is already in place for voiding of any EMD and is not affected by the specific circumstances related to the EMD-S and the Consumed at Issuance Indicator.

This data element is not applicable to the EMD-A, which should always take the same coupon status as the associated ET.

#### 4.2.6.2. Group Deposit

The only time an EMD-S is not limited to one passenger, is when it is issued for a group deposit. When issuing an EMD-S for a group deposit where the names are unknown, it should be issued in the name of the group leader or sponsor.

When the original EMD-S for a group deposit is exchanged and results in an EMD-S for residual value, the new EMD-S should be issued in the name of the original group leader or sponsor.

# 5. EMD PROCESS DESCRIPTION

### 5.1. EMD Issuance

#### 5.1.1. Preparation

#### 5.1.1.1. PNR

Many of the data elements required to issue an EMD are the same as those required to issue an ET and are traditionally stored in a Passenger Name Record (PNR) and, as such, it would seem sensible that a PNR be mandatory for the creation of an EMD.

#### Examples of EMDs always requiring a PNR:

- EMD-A
- When a service needs to be physically booked

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However, some System Providers may offer the option to create an EMD-S outside of a PNR via a creation mask.

Airlines should consider whether they require this as an option, bearing in mind that there will be no traceable history of the transaction.

For the remainder of this document, it is assumed that a PNR is mandatory for the preparation and issuance of an EMD.

#### 5.1.1.2. Mandatory Data Elements

In order to prepare an EMD for issuance, it is necessary for the user to provide the following mandatory information, referred to here as **data elements**:

- Passenger Name
- EMD Type
- Reason for Issuance Code
- Reason for Issuance Sub-Code
- Form of Payment Type (new)
- **¬** Operating Carrier (the carrier providing the service)
- Base Fare Amount
- Total Document Amount

Other data elements are mandatory but are provided by the system, for example:

- Document Number
- Agent Identification
- Total Number of Value Coupons

Some data elements are mandatory, but only if applicable, for example:

- Taxes/fees/charges
- Equivalent Fare Paid



There is one other mandatory requirement for the preparation of the EMD. It is not a data element, like those above and will not be included in the EMD, but is crucial to the process of establishing the service for which the EMD is being issued. This requirement is a **reservations service code** and will depend on whether the service is flight related or not flight related:

- **>** SSR is the reservations service code used when the service is flight related
- **The SVC** is the reservations service code used when the service is not flight related

For full details on reservations service requests related to EMD, please refer to AIRIMP sections 2.10.6 and 2.11.6.6.

#### 5.1.1.3. Automation

Some of the mandatory data elements cannot be determined and have to be provided by the user, for example Passenger Name, Form of Payment Type or Operating Carrier.

Other mandatory elements can also be provided by the user, but there is potential for automation, for example EMD Type, Reason for Issuance Code or Reason for Issuance Sub-Code

Early in the preparation stage, it should be possible to identify why the EMD is being issued, whether that be by typing a key-word or by the type of transaction e.g. exchange, therefore allowing the system to determine Reason for Issuance Code and Reason for Issuance Sub-Code and automatically add them to the PNR. At this stage it should also be possible to determine EMD type.

Without an automated process, users of the system would need to manually validate this information, which could lead to errors and cause inconvenience to the passenger and misinformation to the back office.

Airlines should discuss with their System Provider how some data elements can be pre-stored for automated addition to the PNR.

Please note that the figures in the Section 7 illustrate an automated process where a keyword is used to determine Reason for Issuance Code, Reason for Issuance Sub-Code and EMD Type.

#### 5.1.1.4. Pricing

In order to provide a Base Fare Amount and Total Document Amount for the EMD, the PNR needs to contain a pricing record. Some pricing engines have developed an automated pricing product that can interactively supply pricing information on request. To use this product it is necessary to supply pricing data to the pricing engines in the same way as for flight itinerary pricing. If not using an established pricing product, airlines would need to consider where this information should be sourced from or alternatively, that the information would need to be manually entered. If using an automated pricing product, the airline's System Provider would need to have a communications link with the pricing server providing the data.

#### 5.1.1.5. Conditional and Optional Data Elements

In addition to data elements mentioned above, there are additional data elements for use with the EMD. These data elements may be conditional based on the type of EMD, for example Associated Fare Basis (EMD-A only) or Present To (EMD-S only) or optional to enhance the



quality of the data provided by the EMD, for example Statistical Code or Passenger Check-in Identification (FOID)

For a full list of the data elements please refer to IATA Resolution 722f Attachment A. For the applicability of the data elements to the individual messages please refer to 725f, 725g and 725h Attachments B.

#### 5.1.1.6. Storage of Data Elements in the PNR

Storage of these data elements will vary by System Provider. They may be visible in the face of the PNR or they could need a secondary entry to display them, for example the pricing record. There is no right or wrong way to store the data elements, as long as they are available to include in the EMD issuance request.

#### 5.1.1.7. Validations

Prior to end of PNR transaction, the system will need to perform some validations, for example:

- **7** System validations e.g. are all the mandatory elements present in the PNR.
- Specific airline validations e.g. is the Form of Payment Type supported by the Validating Carrier
- Transaction specific validations e.g. is original Form of Payment present if Original Issue Ticket/Document Number is present

The type of validations mentioned are no different from those already performed today for ET, although the specifics might differ e.g. Reason for Issuance Code and Reason for Issuance Sub-Code are not mandatory data elements for ET.

The PNR is now prepared for EMD Issuance.

Please see figures 6 & 7 in the Section 7 for screen shots of a PNR prepared for EMD issuance.

#### 5.1.2. Messaging

For EMD issuance, display and modification, the method of communication between the reservations application and the EMD database will depend on system architecture.

ET, and therefore EMD, functionality is commonly based in the same system, but can also be based in more than one system.

Within a system, the reservations application and EMD database can be based on a single server or on different servers.

In both cases above, internal messaging will be used to communicate the reservations application's request to the EMD database and the response from the EMD database to the reservations application.

As mentioned above, functionality can be based in more than one system, with the reservations application hosted on one system and the EMD Database hosted on another system. In these instances, PADIS EDIFACT messaging will be the form of communication.

For full details on system architecture, please refer to your System Provider.



PADIS EDIFACT messaging will be the form of communication for all interline messages between airlines and all neutral messages between a GDS and the Validating Carrier.

The PADIS EDIFACT messages allow for inclusion of both ET and EMD data in the same message. However, as with any messaging protocol, it is necessary to review the PADIS EDIFACT messages with your interline partner or the GDS to establish what both parties can support. This will normally take the form of an EDIFACT walk-through and during this walk-through the messages are reviewed in detail, based on interpretation, applicability and technical capability.

For full details on PADIS EDIFACT messaging, please refer to PADIS Implementation Guide.

For EMD notification the method of communication between different reservation applications is by teletype messaging.

Please see figures 16 - 20 in Section 7 for message flow diagrams.

#### 5.1.3. Issuance

The concept of issuing an EMD is no different from that of issuing an ET, except that in most systems, if not all, the entry command will be different to that used for the ET.

#### 5.1.3.1. Request

The issuance request is initiated by user command in the reservations application and is sent to the EMD database and the EMD database responds to the reservations application to either confirm or deny the request.

When the PNR is prepared, as described in section 5.1.1 and the issuance request sent to the Validating Carrier EMD database, in the same way as for ET, certain validations will need to be performed on the key players involved in the EMD and the data included in the issuance request, for example:

- Does the Validating Carrier have a technical IEMD agreement with the Operating Carrier(s)?
- For EMD-A does the Validating Carrier have a technical IEMD agreement with the Validating Carrier of the ET?
- Are all the necessary data elements present in the request?

Validations will be performed within the reservations application or the EMD database or both.

#### 5.1.3.2. Response

If the Validating Carrier confirms a request to issue the EMD, an EMD record will be created in the EMD database and a positive response will be sent to the reservations application. In the same way as for ET, the EMD number will be added to the PNR

If the Validating Carrier denies a request to issue the EMD and an error response will be sent to the reservations application and displayed to the user. In the same way as for ET, error responses are not added to the PNR.



The successful issuance of an EMD will also trigger a teletype notification of the EMD number to all Operating Carriers participating in the EMD itinerary. This notification will be in the form of an ASVC or SVC message. The notification may also be sent to the Validating Carrier.

For full details on the ASVC and SVC message, please refer to AIRIMP sections 2.10.6 and 2.11.6.6.

The issuance of an EMD-A can trigger a number of System Update messages to associate the EMD-A to the ET.

For full details on association, please refer to section 5.1.4.

#### 5.1.3.3. Passenger Receipt

The issuance of an EMD, in the same way as ET, will also trigger the need to issue an EMD receipt to the passenger(s). This receipt must include the following **mandatory items** but not limited to:

- Passenger name
- Reason For Issuance Code
- Reason for Issuance Sub-Code Description
- **n** In Connection with Document Number (if applicable)
- For each value coupon:
  - Operating Carrier Airline Designator
  - Origin and Destination Airport/City Code (if applicable)
- Base Fare Amount
- **7** Equivalent Fare Paid (if applicable)
- **7** Total Document Amount
- **7** Form of Payment
- Tax/Fee/Charge Amounts (if applicable)
- Tour Code (if applicable)
- Date of Issue
- ↗ Issuing Agency/Airline Name and Place of Issue
- Document Number
- Original Issue Ticket/Document Number and Issued in Exchange for Ticket/Document Number
- Endorsements/Restrictions
- Passenger Check-in Information Type

For full details on passenger notices, please refer to IATA Resolution 725f section 6.2.

Please see figures 8 & 9 in Section 7 for screen shots of a PNR after EMD issuance and sales report.

#### 5.1.4. Association and Disassociation

Upon reading this section, the concept of association and disassociation may seem very complex. The complexity comes with the need to keep all interested parties informed and with that in mind, the process should seem logical.

Association and disassociation is achieved via the System Update request. The System Update request is initiated in the reservations application and is sent to the EMD database and can be initiated either by user command or by the system as a background function. The EMD database responds to the reservations application to either confirm or deny the request.

The purpose of issuing an EMD-A, is to create a link between the coupon(s) of the value document and the coupon(s) of the flight ticket. In many ways this process is equivalent to stapling a paper MCO coupon to a paper flight coupon. The creation of this link between the coupon(s) of the EMD-A and the coupon(s) of the ET is called association and will ensure that coupons of both documents are lifted at the same time.

Examples of EMD-A coupons associated to ET coupons:
 EMD-A value document 012 FRABAH coupon 1 is associated to ET flight ticket 012 FRABAH coupon 1 for provision of oxygen bottles for medical reasons during the flight.

 EMD-A value document 013 FRABAH coupon 1 is associated to ET flight ticket 013 FRABAH coupon 1 for an in-flight meal

In certain situations, it becomes apparent that the association is no longer required and the link between the value coupon(s) of the EMD-A and the flight coupon(s) of the ET needs to be broken. The breaking of this link is called disassociation and will prevent the coupons of both documents from being lifted at the same time.

Examples of EMD-A coupons requiring disassociation from ET coupons:

- EMD-A value document 014 BUDSVO coupon 1 is associated to ET flight ticket 014 BUDSVO coupon 1 for excess baggage. The passenger checks-in without excess baggage, therefore the EMD-A needs to be disassociated from the ET
- EMD-A value document 015 BUDSVO coupon 1 is associated to ET flight ticket 015 BUDSVO coupon 1 for an in-flight meal. The passenger cancels his flight and requests a refund for his ET, therefore the EMD-A needs to be disassociated. At this stage the EMD-A may also be refunded or the passenger might elect to keep it for a future journey.

As per the examples above association and disassociation is by coupon.

Note that the System Update message can be generated by different key players:

- **The Validating Carrier of the EMD-A**
- An Operating Carrier of the EMD-A
- The Validating Carrier of the ET

#### **Me** IATA

#### 5.1.4.1 Association

Association of the EMD-A value coupon(s) to the ET flight coupon(s) can only be initiated by the Validating Carrier of the EMD-A or an Operating Carrier of the EMD-A.

Association is driven by two different processes:

- Automatic association associates an EMD-A value coupon(s) to an ET flight coupon(s) at time of issuance of the EMD-A and can only be initiated by the Validating Carrier of the EMD-A
- Manual association associates an EMD-A value coupon(s) to an ET flight coupon(s) when there is a need to re-associate a previously disassociated EMD-A value coupon(s) to the original or a new ET flight coupon(s) and can be initiated by either the Validating Carrier of the EMD-A or an Operating Carrier of the EMD-A

Prior to generating the System Update message for association, the requesting carrier must perform the following validations:

- **7** The name on the EMD-A matches the name on the ET to which it is to be associated
- The board and off points on the EMD-A, including multi-airports within the same metropolitan area, are in the same sequence as those on the ET to which it is to be associated. The routing on the EMD-A may be a sub-set of that on the ET.
- The Operating Carrier on the EMD-A coupon(s) matches the Operating Carrier on the ET coupon(s) to which it is to be associated.
- The coupon(s) on the ET to which the EMD-A coupon(s) is to be associated is not in final status
- The coupon(s) on the ET to which the EMD-A coupon(s) is to be associated is not in suspended status
- Prior to associating an EMD-A value coupon to an ET flight coupon, any ET flight coupon to which the EMD-A value is already associated must be disassociated

When the validations are completed successfully, the System Update message can be generated. Depending on the scenario, it may be necessary to send this message to multiple carriers:

- For automated and manual association, when the Validating Carrier of the EMD-A and the Validating Carrier of the ET differ, the Validating Carrier of the EMD-A generates a System Update message to the Validating Carrier of the ET
- For automated and manual association, when the Validating Carrier of the EMD-A and the Operating Carrier(s) of the EMD-A differ, the Validating Carrier of the EMD-A generates a System Update message to each applicable Operating Carrier of the EMD-A
- For manual association, when the Operating Carrier of the EMD-A is different from the Validating Carrier of the EMD-A, the Operating Carrier generates a System Update message to the Validating Carrier of the EMD-A

When a carrier receives a System Update message requesting the association of an EMD-A value coupon(s) to an ET flight coupon(s), that carrier can only deny the request if the corresponding ET coupon(s) is at final or suspend status. Otherwise the carrier accepts the request and makes the following update to the ET record:



- **7** Updates the In Connection with Document Number with the EMD-A number
- Updates the In Connection With Coupon Number with the corresponding EMD-A coupon number
- Updates the In Connection With Qualifier to indicate that the EMD-A is associated to the ET

#### 5.1.4.2 Disassociation

Disassociation of the EMD-A coupon(s) from the ET coupon(s) can be initiated by the Validating Carrier of the EMD-A, an Operating Carrier or the Validating Carrier of the ET.

Disassociation is driven by two different processes:

- Automatic disassociation disassociates the EMD-A coupon(s) from an ET coupon(s) prior to associating the same EMD-A coupon(s) to a different ET and can only be initiated by the Validating Carrier of the EMD-A or an Operating Carrier of the EMD-A
- Manual disassociation disassociates the EMD-A coupon(s) from an ET coupon(s) when the service is no longer required and can be initiated by either the Validating Carrier of the EMD-A, an Operating Carrier or the Validating Carrier of the ET
- Manual disassociation disassociates an EMD-A coupon(s) from an ET coupon(s) when there is a need to modify either the ET or the associated EMD-A and can be initiated by either the Validating Carrier of the EMD-A, an Operating Carrier or the Validating Carrier of the ET

Airlines may want to request that their Service Provider includes a function that will automatically trigger the disassociation of the EMD-A value coupon(s) from the ET flight coupon(s) on receipt of a request to modify either the ET or the associated EMD-A, for the following transactions:

- オ Exchange/Reissue
- Refund
- オ Void
- オ Suspend

Depending on the scenario, it may be necessary to send the System Update message to multiple carriers:

- For automated and manual disassociation, when the Validating Carrier of the EMD-A and the Validating Carrier of the ET differ and the disassociation is initiated by the Validating Carrier of the EMD-A or the Operating Carrier, the Validating Carrier of the EMD-A generates a System Update message to the Validating Carrier of the ET.
- For manual disassociation, when the Validating Carrier of the EMD-A and the Validating Carrier of the ET differ and the disassociation is initiated by the Validating Carrier of the ET, the Validating Carrier of the ET generates a System Update message to the Validating Carrier of the EMD-A
- For automated and manual disassociation, when the Validating Carrier of the EMD-A and the Operating Carrier(s) of the EMD-A differ, the Validating Carrier of the EMD-A generates a System Update message to each applicable Operating Carrier of the EMD-A

For automated and manual disassociation, when the Operating Carrier of the EMD-A is different from the Validating Carrier of the EMD-A, the Operating Carrier generates a System Update message to the Validating Carrier of the EMD-A

When a carrier receives a System Update message requesting the disassociation of an EMD-A coupon(s) from an ET coupon(s), that carrier cannot deny the request and updates the In Connection With Qualifier to indicate that the EMD-A is disassociated from the ET

### 5.2. EMD Display and Modification

#### 5.2.1. Display

Before modifying an EMD, it is advisable to check the current status of the document by using the display function. The request for a display can be initiated by a user entry, which will result in the display output to the screen and the user will manually validate the information, or it can be initiated by the system as a background display, which will not result in a display output to the screen, but will validate the information automatically. Sometimes these display requests are mandatory e.g. prior to issuance of an EMD-A, to validate the status of the ET to which it will be associated. For all travel agency requests for modification, prior display is always mandatory and the GDS will normally perform this as a background function.

The concept of displaying an EMD is no different from that of displaying an ET, except that in most systems, if not all, the entry command will be different to that used for the ET.

#### 5.2.1.1. Request

The display request can be initiated either by user command or by the system as a background function. It is initiated in the reservations application and is sent to the EMD database and the EMD database responds to the reservations application to either confirm or deny the request.

When the display request is sent to the EMD database, in the same way as for ET, certain validations will need to be performed on the key players involved in the EMD and the data included in the display request, for example:

- **7** Does the display request contain all the mandatory items?
- **7** When the name option is used, does it have the mandatory 2 characters?

Validations will be performed within the reservations application or the EMD database or both.

As with ET, in order to locate the EMD for display, the primary search criterion is the document number. If the document number is not known, the following search criteria are also possible:

- → Frequent flyer reference
- **7** Credit card number and passenger name
- Passenger Check-In Identification Type (FOID)

These are the criteria supported in the IATA standard.



For full details on display only criteria, please refer to IATA Resolutions 725f, 725g and 725h. System Providers may provide other display criteria for use in an online environment only, for example:

- Phone Number
- Passenger name and RFIC and/or RFISC
- E-Mail address and RFIC and/or RFISC

For full details on additional online display criteria, please refer to your System Provider.

#### 5.2.1.2. Response

Following a user display request, a response will be sent from the EMD server to the reservations application. This response can vary, for example:

- If the document number is used in the display request and the EMD is present on the EMD server, the EMD server will return an individual EMD display response
- If the credit card display criterion is used in the display request and multiple EMDs paid for by the same credit card are present on the EMD server, the EMD server will return an EMD similar list display response. The document number will be included for each EMD on the list and the user will need to select the EMD from the list that he wishes to display. This follow-up transaction allows the EMD server to locate the exact match and return an individual EMD display response.
- For any display request, it is possible that the EMD server will not find any match, because either the EMD is not present on the database or an incorrect search criterion has been used. In these cases, the EMD server will return an EMD display error response.

In response to a user request, for a successful display response either the EMD record or a similar list will be returned to the user screen.

Where a background display has been used to validate the status of the EMD prior to another transaction, no EMD display response will be returned to the user screen.

#### 5.2.1.3. Interline

When the Validating Carrier receives a display request from another carrier, it is the responsibility of the Validating Carrier to perform the validations detailed in section 5.2.1.1, and also to validate that there is a technical IEMD agreement between the requesting carrier and the Validating Carrier.

In the same way as for ET, the Validating Carrier must be either the requesting or receiving carrier. When a carrier receives a display request and finds a match, for which neither the receiving nor the requesting carrier is the Validating Carrier, the receiving carrier may not return either an individual or similar list response. In these cases, the receiving carrier will return an error response, but this message may include the Airline Designator (Validating Carrier) in the response comments. The inclusion of the Airline Designator (Validating Carrier) in the error response provides the requesting carrier with enough information to be able to resend the display request to the Validating Carrier.

#### 5.2.1.4. Coupon Status Indicator

In the same way as for an ET, when receiving an EMD display request it is necessary to include the actual Coupon Status Indicators in the individual EMD display response.

#### 5.2.1.5. Cascading Display

In a display request, sometimes it may be necessary to cascade the EMD display request in order to reach the Validating Carrier.

Example of a cascading display transaction from a Ground Handler:
A Ground Handler will send the display request to the Operating Carrier and the Operating Carrier will forward a display request from the Ground Handler to the Validating Carrier
The Validating Carrier will then send a response to the Operating and the Operating Carrier will forward the display response to the Ground Handler.

In another scenario when the Validating Carrier receives a display request and has passed control of a coupon to another carrier, it will be necessary to cascade a display request to the Operating Carrier holding control in order to be able to determine the actual Coupon Status Indicators:

Example of where a cascading display is required:

- Coupon Status Indicator for coupon 1 is 'F' Flown/Used
- Coupon Status Indicator for coupon 2 is 'O' Open for Use
- Coupon Status Indicator for coupon 3 is 'A' Airport Control

In the above case the Validating Carrier may not have the current Coupon Status Indicator for coupon 3, as in the Operating Carrier's copy of the EMD, the Coupon Status Indicator for coupon 3 could be either 'C' – Checked-In or 'L' – Lifted/Boarded. It is also possible that the Coupon Status Indicator for coupon 3 could be 'F' – Flown/Used, but the Operating Carrier has not yet returned final status to the Validating Carrier. By cascading the display request to the Operating Carrier is able to ensure of returning the actual Coupon Status Indicators in the response to the original EMD display request.

This above process may need to be further cascaded if a Ground Handler is acting on behalf of the Operating Carrier for coupon 3. When the Operating Carrier receives a display request and has passed control of a coupon to the Ground Handler, it will be necessary to cascade the display request to the Ground Handler to determine the actual Coupon Status Indicators to include in the response to the Validating Carrier.

Please see figures 10 - 12 in Section 7 for screen shots of a display of an EMD-S, EMD-A and the associated ET.

#### 5.2.2. Exchange

The concept of exchanging or reissuing an EMD is no different from that of exchanging or reissuing an ET, except that in most systems, if not all, the entry command will be different to that used for ET.

The concept of exchanging or reissuing any other document where the new document is an EMD is no different from when the new document is an ET.

When the new document is an EMD, the 'Issued in Exchange For' document could be any of the following:

- Paper ticket
- Paper MCO/MPD
- Paper excess baggage voucher
- → ET
- オ EMD-S
- → EMD-A

The only way to change the EMD type is via the exchange transaction, this allows an EMD-A to be changed into an EMD-S and vice versa.

As with ET, the Coupon Status Indicator used to indicate that a coupon has been exchanged/reissued is 'E'. This is a final status and when the Coupon Status Indicator of a coupon on an EMD is 'E', this renders that coupon eligible to be included in the lift to Revenue Accounts.

When exchanging/reissuing an EMD-A, or the ET to which it is associated, the documents must first be disassociated. As discussed in section 5.1.4.2, some System Providers may automate this function, if not it will be necessary for the user to disassociate them manually.

The exchange of vMPD or vMCO to an EMD is not possible in an interline environment or via an indirect channel.

#### 5.2.2.1. Request

When exchanging/reissuing an EMD, the exchange/reissue request is initiated by user command in the reservations application and is sent to the EMD database and the EMD database responds to the reservations application to either confirm or deny the request.

When exchanging/reissuing another document to an EMD, the exchange/reissue request is initiated by user command in the reservations application and, if the original document is either an ET or EMD, is sent to either the ET or EMD database, as applicable. The ET or EMD database responds to the reservations application to either confirm or deny the request.

Prior to sending the exchange/reissue command, the reservations application will perform a background display to check that the coupon(s) included in the exchange/reissue request is at one of the following statuses:

- ↗ 'O' Open for Use
- オ 'A' Airport Control
- 𝑘 'U' − Unavailable



In the same way as for ET, on requesting the exchange/reissue of an EMD, certain validations will be performed, for example:

- ↗ Does the Validating Carrier have a technical IEMD agreement with the Operating Carrier(s)?
- ↗ For EMD-A does the Validating Carrier have a technical IEMD agreement with the Validating Carrier of the ET?
- **A** Are all the necessary data elements present in the request?

#### 5.2.2.2. Response

If the Validating Carrier confirms a request to exchange/reissue the EMD, a new EMD record will be created in the EMD database and a positive response will be sent to the reservations application. In the same way as for ET, the new EMD number will be added to the PNR and, if the original document was electronic, the Coupon Status Indicator of the original coupon(s) will be set to 'E' – Exchanged/Reissued.

If the Validating Carrier denies a request to exchange/reissue the EMD, an error response will be sent to the reservations application and displayed to the user. In the same way as for ET, error responses are not added to the PNR.

The successful issuance of the new EMD will also trigger a teletype notification of the EMD number to all Operating Carriers participating in the EMD itinerary. This notification will be in the form of an ASVC or SVC message. The notification may also be sent to the Validating Carrier.

For full details on the ASVC and SVC message, please refer to AIRIMP sections 2.10.6 and 2.11.6.6.

The issuance of an EMD-A can trigger a number of System Update messages to associate the EMD-A to the ET.

For full details on association, please refer to chapter 5.1.4.

#### 5.2.2.3. Residual Value/Refundable Balance

If the transaction results in a residual value or refundable balance, the EMD issued for the residual value or refundable balance must be an EMD-S.

#### 5.2.2.4. Interline

In an interline scenario where the Validating Carrier of the new EMD is different from the Validating Carrier of the original document and the original document is either an ET or EMD, a Change of Status message will be sent to the original Validating Carrier to request that the Coupon Status Indicator of the coupon(s) to be exchanged/reissued is changed to 'E' - Exchanged.

When the transaction results in an EMD-S issued for residual value or refundable balance, the document number of the EMD-S must be included in the same Change of Status request message.

When the original Validating Carrier receives a Change of Status request from another carrier, it is the responsibility of the Validating Carrier to perform the validations detailed in section 5.2.2.1,



also that there is a technical IEMD agreement between the requesting carrier and the original Validating Carrier.

When the original Validating Carrier receives a request and the Coupon Status Indicator of the coupon(s) in the Change of Status request is at 'A' - Airport Control, the original Validating Carrier must regain control of the coupon(s) before sending a response.

If the original Validating Carrier regains control of the coupon(s), the request will be confirmed and the Coupon Status Indicator of the coupon(s) included in the request will be updated to 'E' – Exchanged/Reissued.

If the Change of Status request is for a single coupon and the original Validating Carrier cannot regain control of that coupon, the request will be denied.

If the Change of Status request is for multiple coupons and the original Validating Carrier cannot regain control of all of the coupons, most systems will have the option to either deny the request completely or to confirm the request, but only for those coupons for which the original Validating Carrier is holding control. For those coupons confirmed in the response, the Coupon Status Indicator will be updated to 'E'- Exchanged/Reissued.

Where systems have this option, this should be clarified as part of the GBR discussions.

The above process is exactly the same as that which applies today in an ET to ET exchange/reissue transaction, with the exception that currently no EMD-S is issued for the residual value or refundable balance. However, with the introduction of EMD, this improvement to the exchange/reissue process should be applied to all electronic to electronic exchange/reissue transactions.

See figures 13 in Section 7 for a screen shot of a display of an exchanged EMD-S.

#### 5.2.3. Refund

The concept of refunding an EMD is no different from that of refunding an ET, except that in most systems, if not all, the entry command will be different to that used for ET.

As with ET, the Coupon Status Indicator used to indicate that a coupon has been refunded is 'R' – Refunded. This is a final status and when the Coupon Status Indicator is 'R' this renders the coupon eligible to be included in the lift to Revenue Accounts.

When refunding an EMD-A or the ET to which it is associated, the documents must first be disassociated. As discussed in section 5.1.4.2, some System Providers may automate this function, if not it will be necessary for the user to disassociate them manually.

#### 5.2.3.1. Request

The refund request is initiated by user command in the reservations application and is sent to the Validating Carrier EMD database and the Validating Carrier EMD database responds to the reservations application to either confirm or deny the request.

Prior to sending the refund request, the reservations application will perform a background display to check that the coupon(s) included in the refund request is at one of the following statuses:



- ↗ 'O' Open for Use
- 'A' Airport Control
- → 'Y' Refund Taxes/Fees/Charges Only

In the same way as for ET, on requesting the refund of an EMD, certain validations will be performed, for example if all the necessary data elements are present in the request.

#### 5.2.3.2. Response

If the Validating Carrier confirms a request to refund the EMD, a positive response will be sent to the reservations application. In the same way as for ET, the Coupon Status Indicator of the original coupon(s) will be set to 'R' – Refunded.

If the Validating Carrier denies a request to refund the EMD an error response will be sent to the reservations application and displayed to the user. In the same way as for ET, error responses are not added to the PNR.

#### 5.2.3.3. Interline

Let us look at an interlining scenario to understand the refund processes.

Examples of a refund in an interline scenario: EMD-A value document 006 MANLHRMRSTUN has been issued for excess baggage by carrier AA, on arrival in LHR the passenger wants to change the remaining itinerary from LHRMRSTUN to LHRTUN. Carrier BB disassociates the EMD-A 006 from the associated ET and reissues both documents. The issuance of EMD-A value document 007 LHRTUN will automatically associate it to the new ET. There is a refundable balance and as part of the same transaction carrier BB issues an EMD-S for this amount. Revenue accounting regulations require that the passenger takes the EMD-S issued for the refundable balance back to the original Validating Carrier AA for refund. In order to refund the value of the EMD-S, carrier AA needs to send a Change of Status message to carrier BB to set the Coupon Status Indicator to 'R' – Refunded.

A Change of Status message would be sent to the Validating Carrier to request that the Coupon Status Indicator of the coupon(s) to be refunded is updated to 'R' - Refunded.

When the Validating Carrier receives a Change of Status request from another carrier, it is the responsibility of the Validating Carrier to perform the validations detailed in section 5.2.3.1, also that there is a technical IEMD agreement between the requesting carrier and the Validating Carrier.

When the Validating Carrier receives the request and if the Coupon Status Indicator of the coupon(s) in the Change of Status request is at 'A' - Airport Control, the Validating Carrier would have to regain control of the coupon(s) before confirming the request.



If the Validating Carrier regains control of the coupon(s), the request will be confirmed and the Coupon Status Indicator of the coupon(s) included in the request will be updated to 'R' – Refunded.

If the Change of Status request were for a single coupon and the Validating Carrier could not regain control of that coupon, the request would be denied.

If the Change of Status request were for multiple coupons and the Validating Carrier could not regain control of all of the coupons, most systems would have the option to either deny the request completely or to confirm the request, but only for those coupons for which the Validating carrier would be holding control. For those coupons confirmed in the response, the Coupon Status Indicator will be updated to 'R'- Refunded.

Take note of the following statement in resolution 725g (6.5.7 and 8),

- An agency issued EMD shall only be refunded by the issuing agency or an authorised branch location of the issuing agency
- An agency may refund an EMD issued by an airline own office when authorised by the airline that issued the EMD.

Where systems have this option, this should be clarified as part of the GBR discussions.

Please see figures 14 in Section 7 for a screen shot of a display of a refunded EMD-S.

#### 5.2.4. Void

The concept of voiding an EMD is no different from that of voiding an ET, except that in most systems, if not all, the entry command will be different to that used for ET. The void request is initiated by user command in the reservations application and is sent to the EMD server.

Only the Validating Carrier can void an EMD and all coupons must be voided.

As with ET, the Coupon Status Indicator used to indicate that a coupon has been voided is 'V'. This is a final status, however when the Coupon Status Indicator is 'V', as the sale is voided and there is no usage, the coupon(s) is not usually included in the lift to Revenue Accounts.

When voiding an EMD-A, or the ET to which it is associated, the documents must first be disassociated. As discussed in section 5.1.4.2, some System Providers may automate this function, if not it will be necessary for the user to disassociate them manually.

#### 5.2.4.1. Request

The void request is initiated by user command in the reservations application and is sent to the Validating Carrier EMD database and the Validating Carrier EMD database responds to the reservations application to either confirm or deny the request.

Prior to sending the void request to the EMD server, the reservations application will perform a background display to check that the coupon(s) included in the void request is at one of the following statuses:

- ↗ 'O' Open for use
- オ 'A' Airport Control

In the same way as for ET, on requesting the void of an EMD, certain validations will be performed, for example if all the necessary data elements are present in the request.

#### 5.2.4.2. Response

If the Validating Carrier confirms a request to void the EMD, a positive response will be sent to the reservations application. In the same way as for ET, the Coupon Status Indicator of the original coupon(s) will be set to V' - Void.

If the Validating Carrier denies a request to void the EMD an error response will be sent to the reservations application and displayed to the user. In the same way as for ET, error responses are not added to the PNR.

Please see figures 15 in Section 7 for a screen shot of a display of a voided EMD-S.

# 5.3. Travel Agency EMD

#### 5.3.1. Travel Agency EMD process

Key to the EMD process is the travel agency community. In the same way as for ET, travel agents can issue and modify EMDs that have been created by their own agency or an authorised branch of the same agency.

The methodology for EMD is exactly the same as for ET:

- Interaction is only with the Validating Carrier of the EMD
- The same physical links used for communicating with the Validating Carrier for ET will be used for communication between the travel agent GDS/System Provider and the Validating Carrier of the EMD
- PADIS EDIFACT messages will be used to communicate with the Validating Carrier of the EMD
- The same message types used for ET will be used for EMD, no new message types have been introduced for EMD
- EMD will need a new range of message numbers, but the majority of these messages will be of the same structure as ET messages, the only difference being in the data content.

Although the methodology is the same, there are some differences between EMD and ET.

- EMD will use a new and unique form code
- The Reservations Change function will not apply to EMD
- As the Print and Print Exchange functions do not apply to EMD, the Coupon Status Indicators of 'P' and 'X' will never be present on an EMD display
- A number of new data elements apply to EMD, for example:
  - o Additional Services Filed Fee Amount
  - o Coupon Value
  - o Present To
  - Reason for Issuance Code

For a complete list of these data elements, please refer to Resolution 722f Attachment A

When present, the carrier(s) listed in the itinerary on the EMD will be the Operating Carrier.

The currency of the Base Fare Amount on the EMD will be determined by usage. For those EMDs issued for Additional Services the Base Fare Amount will be shown in the currency of the country of payment.

To support EMD it will be necessary to upgrade both ET and EMD messages to version 08:1

#### 5.3.2. Travel Agency EMD Display

A significant change is with the display function. With EMD, the IATA standard requires that a travel agency be able to display an airline issued EMD, when authorised by that airline. It is quite common that a passenger will have an ET modified by an airline, either Validating Carrier or Operating Carrier. This modification may result in a refund to the passenger, issued on an EMD-S. If the passenger takes the EMD-S for the refundable balance back to his original travel agency for refund, the travel agent needs to be able to process the refund and this will require access to the EMD-S in the airlines EMD database.

#### 5.3.3. Travel Agency EMD issuance

The concept of issuing an EMD is no different from that of issuing an ET, except that in most systems, if not all, the entry command will be different to that used for the ET. The issuance request is generated by the GDS/System Provider and sent to the Validating Carrier EMD database and the Validating Carrier EMD database responds to the GDS/System Provider to either confirm or deny the request.

Preparation of the PNR for issuance requires the same data elements as described in section 5.1.1. There are additional data elements specifically related to the travel agency environment, e.g. Commission Amount, but such data elements are the same as already used for ET.

When an issuance request is sent to the Validating Carrier EMD database, the same validations will need to be performed as if the request was coming from the Validating Carriers own reservations application. These Validations will be performed both by the GDS/System Provider and the Validating Carrier.

In addition, before sending an EMD-A issuance request, it is the responsibility of the GDS/System Provider, using the display function, to validate, the following:

- ET coupon(s), to which the EMD-A coupon(s) will be associated, must not be in final status
- The routing on the EMD-A value coupon(s) must be the same and in the same sequence as the ET flight coupon(s) to which it will be associated with the exception that the routing on the EMD-A value coupon(s) may differ from that on the ET flight coupon(s) for multi airports within the same metropolitan area
- The name on the EMD-A must be exactly the same as the name on the ET to which the EMD-A coupon(s) will be associated.
- The Operating Carrier for the EMD-A coupon(s) must be the same as that for the ET coupon(s) to which it will be associated

For full details on validations, please refer to section 4.2.3.

If the Validating Carrier confirms a request to issue the EMD, an EMD record will be created in the EMD database and a positive response will be sent to the travel agent via the GDS/System Provider.

Notification of the EMD number will be sent by the GDS/System Provider to the Validating Carrier and all Operating Carriers participating in the EMD itinerary. This notification will be in the form of an ASVC or SVC message and sent via teletype.

For full details on the ASVC and SVC message, please refer to AIRIMP sections 2.10.6 and 2.11.6.6.

If the Validating Carrier denies the request, an error response is sent to travel agent via the GDS/System Provider.

#### 5.3.4. Travel Agency EMD Modification

The concept of modifying an EMD is no different from that of modifying an ET, except that in most systems, if not all, the entry command will be different to that used for the ET. The modification request is generated by the GDS/System Provider and sent to the Validating Carrier EMD database and the Validating Carrier EMD database responds to the GDS/System Provider to either confirm or deny the request.

When a modification request is sent to the Validating Carrier EMD database, the same validations will need to be performed as if the request was coming from the Validating Carriers own reservations application. These Validations will be performed by the both by the GDS/System Provider and the Validating Carrier. Additionally the Validating Carrier will validate that the request is received from the same or authorised branch of the agency that issued the EMD.

If the Validating Carrier confirms a request to modify an EMD, the Coupon Status Indicator will be updated, for example'E' - Exchanged/reissued, 'R' – Refunded or 'V' – Void

A positive response will be sent to the travel agent via the GDS/System Provider.

If the Validating Carrier denies the request, an error response is sent to travel agent via the GDS/System Provider.

In the same way as for ET, where there is a communication failure between the travel agency GDS/System Provider and the Validating Carrier, a System Cancel message will be used to request the Validating Carrier to void the new document. If the communications failure occurs during an exchange/reissue transaction, the Validating Carrier will also update the Coupon Status Indicator of the original document to 'O' – Open for Use.

Where a mistake has been made in the modification of the EMD, the same roll-back process that applies to ET will apply to EMD, for example Void Exchange or Refund Cancel.

#### 5.3.5. Travel Agency EMD Exchange/Reissue function

A further change applies to the exchange/reissue function. When the exchange/reissue transaction results in a refundable balance or a penalty fee, an EMD-S must be issued to account for that balance and/or fee. The GDS/System Provider, on behalf of the travel agent, will generate a single exchange/reissue request message to the Validating Carrier for the document to be exchanged, including the new document number(s) issued as a result of the exchange/reissue transaction and any EMD-S value document numbers(s) issued for refundable balance or penalty fee.

The travel agent can issue both EMD-S and EMD-A, but if issuing EMD-A the travel agent must include in the issuance request message, the ET number to which the EMD-A will be associated. In addition to this, if an ET has been exchanged/reissued and it is the intention to re-associate an existing EMD-A coupon(s) to the new ET coupon(s), the travel agent must include the corresponding EMD-A document and coupon number(s) in the Exchange request message.

On receipt of a successful request from the travel agent to issue an EMD-A, it will be the responsibility of the Validating Carrier of the EMD-A to generate the System Update message to request association of the EMD-A coupon(s) to the ET coupon(s).



On receipt of a successful request from the travel agent to modify an EMD-A, it will be the responsibility of the Validating Carrier of the EMD-A to generate a System Update message to request disassociation of the EMD-A coupon(s) from the ET coupon(s).

The travel agent GDS/System Provider has no responsibility for the association or disassociation of the EMD-A value coupon(s) to/from the ET flight coupon(s).

For full details on association, please refer to section 5.1.4.

# 6. FAQ

### 6.1. General

# Q1: Are ancillary services covered under Resolution especially non-flight related services and products?

A1: Yes they are published in Recommended Practice 1790a. There is also a reservations procedure to book an SVC segment for non-flight related services covered in AIRIMP section 2.10.6. What is not covered is delivery of the service i.e. what happens if the service is not delivered or the incorrect service is delivered, this will be covered by commercial policy.

#### Q2: Is EMD going to replace paper MCO and even replace the interim vMPD.

A2: Yes. It will replace all remaining accountable paper documents including excess baggage tickets and all virtual documents including VMPD and VMCO. It does not replace the Flight Interruption Manifest. V-MCO and v-MPD will be phased out end 2013. Only EMD will be available in BSP as of 1<sup>st</sup> of January 2014.

#### Q3: Should EMD be allowed in all channels not just GDS/CRS.

A3: Yes, correct. Airlines will most likely implement EMDs in direct offices, and then will deploy it to issue EMD by travel agent and for interlining.

#### Q4: Are GDS ready for direct or indirect EMDs?

A4: IATA is engaged with the big 6 major system providers and GDS and all of them are proceeding with EMD deployment, first for their hosted customers and second within the GDS environment for agents. We anticipate deployment by pilot airline this summer 2010 in Europe, with GDS roll out to agents shortly afterwards. As things are moving quite fast, carriers should liaise directly with their system provider to secure implementation slots and plan deployment with major GDS.

# Q5: Some airlines have asked agents to use vMPDs to book group ticket, bypassing GDSs. These airlines might not see the benefits of EMDs through GDSs.

A5: Simply using a vMPD is not really bypassing the GDS and most agents value the opportunity to run everything via the GDSs. IATA will ultimately sunset the vMPD and does not see this as a major issue.

# **Q6:** What status does IATA give to those airlines having deployed EMD not compliant with the standard?

A6: Anything that does not conform to the IATA standard is NOT an EMD but would be considered a proprietary non-standard solution. IATA would suggest that the carrier look at the functionality they are testing now and take a step back to see what they need to do to make it fully compliant in accordance with Resolution 725f. Indeed they may well be able to leverage a lot of what is already in place in becoming compliant. If it is not compliant when they deploy it, they will be unable to send and receive interline messages nor distribute via the GDSs.

# Q7: What is the difference between Validating Carrier Fees and those fees requiring the issue of an EMD?

A7: Validating carrier fees are non-interlinable fees that do not form part of the document total. They can apply equally to an ET or an EMD, for example where an airline applies a charge for payment by credit card, this charge can apply if the passenger is paying for a flight via an ET or for a fee via an EMD.

## 6.2. Form Codes

#### **Q8:** Do form codes differentiate between EMD-A and EMD-S?

A8: No, form codes do not differentiate between EMD-A and EMD-S, between domestic and international or between Excess Baggage and MCO.

Q9: Previously paper MCOs and excess baggage tickets had separate form codes. How will an airline be able to differentiate for EMD?

A9: To differentiate, airlines must use RFIC with the RFISC.

Q10: In resolution 1720a, the form code "82-" is also used in EMD? Our accounting department needs to distinguish the domestic and international ticket from the ticket number. So we should use "455" and "456 " in domestic and "82-" in international?

A10: Form code 82- is also designated EMD so you can indeed use that and you have a 100 million numbers as the serial number will have 8 digits as opposed to 455 and 456 which only have 7 digits. Neither IATA nor the BSPs differentiate at the form code level between domestic and international. If airline customers require separate ranges to identify domestic only transactions versus international, then it would be up to the carriers to manage internally bearing in mind this may not be the same for BSPs.

# 6.3. RFIC/RFISC

#### Q11: How do I apply for a RFISC?

A11: Carriers must contact ATPCO. Please see section 4.2.3.1 of this document.

### 6.4. Functional

#### Q12: Is the value also reflected separately per service type.

A12: It depends whether there is a fare calculation present and the method used for processing. In some cases yes, in others it would not be possible, e.g. for excess baggage if a charge of USD100.00 is paid for NYC BB DXB CC BOM, there would be no coupon value. Normal industry prorate rules would be applied in revenue accounting.

# Q13: To what extent does our reservations host need to support EMD? Will the EMD be stored in our e-ticketing database?

A13: EMD will in general not be stored on your ET server it will have its own server with linkage to the e-ticketing database for the purpose of association and disassociation. Your system provider will be able to provide with more detail on their system hierarchy and architecture.

# Q14: Do I expect that when an EMD is issued through the GDS, our servicing staff will be able to pull up an EMD record on our system host, much the same way they pull up a ET?

A14: Correct yes. You should be able to display an EMD with the primary search criterion the EMD document number or a frequent flyer reference or a credit card number and passenger name or the FOID. Please see Resolution 725f section 6.4.3.

## 6.5. EMD Types

#### Q15: How do we know whether to file on-board services as EMD-S or EMD-A?

A15: If you file them as EMD-A it would mean that the coupon(s) would get automatically confirmed as used at the same time as the ET coupon(s). If you file them as EMD-S you would need to introduce a process, either manual or automated, to confirm them as used. Please see section 4.2.4.

# Q16: From all the industry documentation, there appears to be no definitive list of what products may be issued under what document type, namely what products will be in an EMD-A and what will be an EMD-S.

A16: Correct. The choice is up to the airline except where **mandated** by Industry (see Resolution 725f sections 6.2.2.2 and 6.2.3.2). The only other thing to be taken into consideration is the reservations service request, if using SVC for a non-flight related service, this can only be an EMD-S, if using SSR for a flight related service, this can be either EMD-A or EMD-S. For interline please see A19 below.

# Q17: Essentially we're trying to figure out as to whether we can have lounge access or any other Airport Services [E] or Surface Transportation [B] included in an EMD-A?

A17: How you file your services is your commercial decision. However, to interline these services it will be necessary for your interline partner to be able to accept the same service on the same EMD type.

# Q18: Has there been any work done on what RFIC [Reason for Issuance Codes] and their RFISC [Reason for Issuance Sub Codes] may be issued against what document type and if so are there any types which may be issued on both EMD document types?

A18: The ATPCO document lists recommendations but it is not mandatory except for those mandated by Industry as noted above.
# Q19: We have a product offering at present, which we will offer the GDSs using EMD which has in-flight product of Extra Baggage, premium IFE, meals with the addition of Ground Product such as Lounge Access and Valet Parking can we choose which type of EMD?

A19: There may be some logic to say in-flight products should be EMD-A because they are related to flight services and lounge access should be EMD-S because it is a ground service, but actually some airlines wanted the freedom and flexibility to define which EMD type is issued, so this is not addressed in Resolution.

#### Q20: Is it possible to issue an EMD-A against an SVC segment.

A20: No. The SVC segment is the reservations request for a non-flight related service. As the EMD-A must always be issued in connection with an ET, the service has to be flight related.

#### 6.6. Routing

# Q21: Can you confirm if multiple coupons for multiple services can be issued in single EMD document.

A21: A conjunction EMD may have up to 16 coupons and multiple services can be provided via a single EMD when they all belong to the same RFIC group. Where multiple services are required for the same flight segment (referred as *"same board and off points"* in Reso 725f: 6.1.8.1), separate EMDs are required. Where multiple items of the same service (like 2 dinners meal) are required, this can be provided by a single EMD coupon. Please see section 4.2.4

# Q22: Using the itinerary LAXAKL <u>AKLSYD</u> SYDLAX, if there was a Meal and In-flight Entertainment, both Reason for Issuance Codes "In-flight Services" [G] to be issued in connection with a single ETKT coupon <u>AKLSYD</u>, would they have to be issued on separate EMDs.

A22: Correct. This is the intention of Resolution 725f paragraph 6.1.8.1. You can have only 1 RFIC at the document level with multiple sub codes at coupon level, but NOT if it is for the same board points and off points. Separate EMDs are required when multiple services are required for the same board points and off points.

#### 6.7. Association/Disassociation

# Q23: If I issue an EMD-A with 2 coupons associated to an ET and I need refund one EMD-A coupon, should I disassociate the EMD-A coupon from the ET coupon? Does the part of the EMD become to the final status 'R'?

A23: Correct. As stated in Resolution 725f section 6.1.10.3. This action is carried out by the Validating carrier as there is no associate/disassociate function in the neutral environment.



# Q24 If the answer to Q23 above is correct is the EMD-A still an EMD-A? Should I exchange it to EMD-S? If it is still an EMD-A, then which ET number should I store? So does the flight information.

A24: No, this is not required. After disassociation the EMD-A is available for further use or for exchange or refund. However, if the value of the EMD-A is to be used towards a service which is designated as an EMD-S, the EMD-A must be exchanged for an EMD-S.

# Q25: What happens when a carrier receives a System Update message to disassociate an EMD-A?

A25: Please see Resolution 725f sections 6.3.9 and 6.3.10 where it states that on receipt of a System Update message for disassociation, the receiving carrier shall update the Issued in Connection With Qualifier of the ET record to indicate the EMD-A is disassociated and the Issued in Connection With Qualifier of the EMD-A to indicate the ET is disassociated.

#### 6.8. Interline

# Q26: Will IATA extend the MITA or create a separate document for commercial agreement related to EMD?

A26: There is no need as MITA already defines the commercial agreement between airlines. For IEMD there will be a need for technical agreement to ensure compatibility and the ability to exchange messages. In the future, as with all our standards, if something is missing in MITA (e.g. related to selling ancillary services) then IATA will take the issue at industry level.

# Q27: Will Airlines be able to opt out of accepting interline paper miscellaneous documents?

A27: Going forward there will be a proposal to have an opt-out clause for carriers to declare that they will not accept interline paper miscellaneous documents, just as IATA did with interline paper tickets.

#### 6.9. DCS/Ground Handling

# Q28: How is the ground handling agent supposed to see if an ancillary service has been paid for or not?

A28: The presence of an EMD number in the .R/ element of PNL is the proof of payment.

# Q29: Assuming that DCS' around the world are required to develop functionalities for checking if the AUX SVC and the SSR ASVC elements in the PNL/ADL contain EMD numbers. What would happen if the EMD number is missing?

A29: A missing EMD number on the PNL/ADL means the service has not been paid for. It will need to be airline policy what happens next, for example sending the passenger to a desk to pay, passenger pays at the DCS desk or cancel the service.

Q30: One important parameter is that each carrier may have its own policy as to if an ancillary shall be chargeable or for free. If DCS/ground handlers are expected to check for EMD number it will also require that each ground handler/DCS system is aware of whether an ancillary is chargeable or for free for that particular carrier. And this for each and every airline they handle. Some airlines may even have a different policy for domestic and international, short or long haul etc.

A30: IATA believes this is more to do with service provision. A lot of the issues raised relate more to customer service rather than the automation. Indeed there may have to be certain assumptions made just as with ETs and this may well come down to airline commercial policy. However we do not think this is uniquely related to the EMD alone but rather the added complexity that selling and delivering optional services will bring.

#### Q31: Has one looked into EMD for handling FIM and if so what would be the process?

A31: Referring to an EMD being put on a FIM, the answer is yes. This is what is stated in Resolution 725f:

5.4.5 G Exchanged/FIM — Indicates the EMD value coupon(s) has been exchanged for a Flight Interruption Manifest by a Ground Handler. To be used when the EMD-A has been issued for excess baggage.

Only an EMD-A issued for excess baggage can be exchanged to FIM and the process is exactly the same as with ETs. What has not been addressed is when EMD-As are issued for additional services. Airlines felt that they would make their own commercial decisions since one airline's policy will vastly differ from another, for example, where a passenger has paid for a service on one carrier and is now rebooked on to another carrier which does not charge for the same service.

#### 6.10. Financial

# Q32: What does revenue accounting department need to know when introducing EMD in BSP?

A32: Revenue Accounting departments need to be aware that processes will need to change to identify usage via the RFIC and RFISC rather than by the form code. Although this will require some adjustment to revenue accounting systems, the result is a greater richness of data than was ever possible with MCOs.

# Q33: Will IATA define Interline EMD accounting and settlement standards, as there is no fare calculation or industry pro-ration methodology for EMD?

A33: For EMD-As issued as excess baggage, the revenue accounting and pro-rate rules are already defined in the revenue accounting manual. Whilst the fare calculation data element is applicable to EMDs, we did not define a fare calculation data element specific to EMDs. With regard to new opportunities for selling additional services this is the new business.

#### Q34: When and how can I introduce EMD in BSP?

A34: Now: see A35 for EMD deployment. On the BSP side, all the BSP-DPCs are ready since 2009 to receive RET 20.2 files: all DPCs support DISH 20.2, which includes EMD. All depends on readiness of business partners (GDS / Airlines).

#### Q35: Which version of the DISH will be used to deploy EMD in BSP markets?

A35: While DISH 20.3 includes the data interchange specifications for EMD, these have also long since been published and available within DISH 20.2. As such, EMD implementation is completely outside the scope of the 20.3 implementation project.

Any Business Partner (GDS/Airlines) wishing to implement EMD in any BSP must test and implement EMD as a 'new industry product' as defined in DISH Chapter 4.3.5.

The diagram below demonstrates how an EMD implementation fits in with DISH 20.3 implementations during this transitional period:



#### Q36: Are all EMDs covered under current BSP Financial coverage/bank guarantee?

A36: The EMD would be covered as it is a standard traffic document. Of course if the bank guarantee is insufficient to cover the issuance of EMDs for additional services then it would have to be reviewed in accordance with normal BSP processes.

# Q37: There is a lack of standard for the Fare calculation entry. Will there be a standardisation of it?

A37: There is a standard format for fare calculation, which applies to EMD, which is available in the data elements glossary

#### Q38: What is the relationship between EMD and Credit Card?

A38: Miscellaneous charges have been around forever and there is no intention that EMD is going to change credit card billing.

#### 6.11. Delivery of Service

### Q39: What are the main legal responsibilities regarding providing a passenger receipt for EMD?

A39: The legal requirements are published in Resolution 725g section 6.2.1.6 and 6.2.1.7. A receipt must be provided to the passenger with the minimum data referenced. In addition, just like with ETs, there is a legal notice that should also be provided.

This paragraph shall be printed on the receipt provided to the passenger:

Where this document is issued for transportation, or services other than passenger air transportation, specific terms and conditions may apply. These terms and conditions may be provided separately or may be obtained from the issuing company or agent.

In addition, the term and condition notice shall be provided separately

#### TERMS AND CONDITIONS

This document is not valid unless properly validated. If air carriage is provided for hereon, this document must be exchanged for a ticket and at such time prior to departure as may be required by the rules and regulations of the carrier to whom the document is directed. If this document is issued in respect to baggage, the passenger must also have a passenger ticket and baggage check, since this document is not the baggage check described by Article 4 of The Hague Protocol or The Warsaw Convention as amended by the Hague Protocol, 1955 or the Baggage Identification Tag described by Article 3 of the Montreal Convention 1999. This document is not transferable and neither the issuer nor any carrier nor any person supplying the non-air carriage services provided for hereon shall be liable to the purchaser or person named on the face hereof in the event of the loss or theft of this document, or if it is honoured when presented by any person other than the person named hereon. This document and any carriage or services for which it provides are subject to the currently effective and applicable tariffs, conditions of carriage, rules and regulations if the issuer and of the carrier to whom it is directed and of any carrier performing carriage or services under the ticket or tickets issued in exchange for this order, and to all the terms and conditions under which non-air carriage services are arranged, offered or provided, as well as the laws of the country wherein these services are arranged, offered or provided. In issuing this document, the issuer acts only as agent for the carrier or carriers furnishing the carriage or the person arranging or supplying the services described hereon and the issuer shall not be liable for any loss, injury, damage or delay which is occasioned by such carrier or person, or which results from such carrier or person performing or failing to perform the carriage or other services, or from such carrier or person failing to honour this document. The honouring carrier or person providing services re-serves the right to obtain authorisation from the issuing carrier prior to honouring this document. The use of the term issuer, carrier or person includes all owners, subsidiaries and affiliates of such issuer, carrier or person and any person with whom such issuer, carrier or person has contracted to perform the carriage or services provided for hereon. The acceptance of this document by the person named on the face hereof, or by the person purchasing this document on behalf of such named person, shall be deemed to be consent to and acceptance by such person or persons of these conditions.

#### Q40: How can passenger exchange their 'proof of purchase' for the service they paid for?

A40: The proof of purchase is the EMD coupon. The passenger should present the receipt.

#### Q41: When is an EMD coupon considered as used?

A41: For EMD-A the coupon will be considered as used at the same time as the ET coupon is used. For an EMD-S, the only automated process is to set the Consumed at Issuance Indicator which would automatically change the status to used at issuance.

FAQ



## Q42: If the EMD coupon status is set to used, how will we know that the service has been delivered?

A42: The EMD itself may not provide a means to audit actual delivery of the service. An EMD-A coupon will be set to 'F' - Used at the same time as the ET coupon is set to 'F' – Flown, therefore for a service such as excess baggage will indicate delivery of that service when the excess baggage is accepted at check-in. However, for an in-flight service the EMD-A coupon may be set to 'F' - Used before the service has been actually delivered.

# Q43: If we use an EMD-S for in-flight services, how do we know when to set the coupon to used?

A43: For an EMD-S many carriers may choose to use the Consumed at Issuance Indicator to automatically change the coupon status to 'F' - Used at issuance time, but this would normally apply to an EMD-S issued for a fee paid. Apart from that there is no process documented to set an EMD-S coupon to 'F' - Used, so when using an EMD-S for in-flight services, it will be up to individual carriers to determine when a service is delivered in order to be able to set the coupon to 'F' - Used. An internal process will be required to change the status.

# Q44: If we use a service provided by a third party, how does the passenger provide proof of purchase?

A44: For scenarios related to services provided by 3rd parties such as tour companies, ground transportation providers, hotels and car hire providers, this was discussed at the EMD Working Group and it was concluded that the receipt should be enough for the passenger to present to the provider. The provider should also be able to find the reservation and even if needed the airline would provide a simple email, fax or otherwise inform the provider that a customer is entitled to a service.

# Q45: If we use an EMD-S for services provided by a third party, how do we know when to set the coupon to used?

A45: At EMD Working Group it was concluded that how airlines manage the relationship with a 3rd party service provider would be determined between the provider and the airline on bilateral basis since clearly a small tour operation (for example a safari company in Africa) would never invest in the automation for an EMD. It would be assumed that the service is used and the provider bills the airline. An airline's internal accounting process would match the invoice to the EMD or otherwise perform internal checks and audit prior to the payment. Revenue Accounting systems providers should be contacted to determine how this might be accommodated.

IATA
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# 7. SCREEN SHOTS AND MESSAGE DIAGRAMS

Please note that screen shots provided below are for illustration purposes only. They are provided by a single System Provider and screen shots will differ by System Provider.

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HELAY0113/0001AA/26MAY10
                                                                                                                                                                                                                                                                 Figure 6 - PNR ready for issuance of EMD-S for non-flight related bus transportation
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                                                                                                                                                                                                                                                                                                                                          TSM ---(pricing record - contains Issued in Connection With data elements)
TSM ---(pricing record - contains Present to and Present At data elements)
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2 SVC AY HK1 TBUS NCE 26MAY (keyword to determine RFIC, RFISC and EMD Type)
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Figure 8 - PNR after issuance of EMD-S for bus transportation

FA PAX 105-820000008/DTAY/EUR35.00/26MAY10/HELAY0113/19491684/S2

PAX 2600142567 TTM/ED/RT OK EMD/S2

Б В

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4 TK OK26MAY/HELAY0113 5 FA PAX 105-820000008 1st edition – July 2010 - www.iata.org/stb/e-services

Airline Guide to EMD Implementation
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ANCY EUF	-       日     日     日     日	0.00 0.00
CURRI 26 N	TAX	0.00
* * *	CASH	35.00 102.00 0.00
REPORT *: PERIOD RRENT	REDIT	0.00
GY NO - 19491684 ITEM ] FFICE - HELAY0113 SALE GENT - ALL CUI	DCNUM PAYMENT CI	 200000008 CASH 20000010 CASH 20000011 E 105-820000010

Γ

Figure 9 - Sales report with EMD sales

SYS-1A LOC-Y4AWQL	IOI-19491684	ADT			VALUE-35.00													
	DOI-26MAY10				SAC-							O VAL						
TYPE-S	POI-HEL		SPORTATION		S-0	SPORTATION					35.00	5.00 RFNI		35.00				
MD-105820000008	NT- FCI-0 1	AX- DOE/JANE MS	FIC-B SURFACE TRAN	EMARKS-	PN-1 RFISC-OBM AY	ESCRIPTION-BUS TRAN	ON-EXCHANGEABLE	RESENT TO-FINNAIR	RESENT AT-NCE	ERVICE REMARKS-	ARE F EUR	XCH VAL EUR 3	- X.A.	OTAL EUR	FC	P CASH	-DID-	

Figure 10 - EMD-S Display

SAGGAGE FISC-99Z AY HELLHR S-C T AT- 147180780C1 (A EUR 100.00
100.00 R UR 100.00

Figure 11 - EMD-A Display



1A LOC-ZJ6YLS	IOI-19491684		3 0 K									<ul> <li>Display of Associated ET</li> </ul>	SYS-1A LOC-Y4AWQL
	DOI-27MAY10	S I	0				ROE1.000000					Figure 12	
.1	POI-HEL	) ADT	OK T				0.00 END						70
RCJ	FCMI-1	HSCENARIC	FEB 1405		450.00	450.00	00NUC 450				1(A)		TYPE-9
KT-1052447180780	D-HELLON SI-SITI	1.ALPHATEST/FOURT	OHEL AY 839 C 22	LHR	ARE F EUR	OTAL EUR	FC HEL AY LON 450.	P CASH	AC-	N CONNECTION WITH:	. 105-820000017E		MD-105820000008

1A LOC-Y4AWQL	IOI-19491684	ADT			VALUE-35.00													
SYS-	DOI-26MAY10				C- 10500009GSS94							Г						
TYPE-S	POI-HEL		ISPORTATION		S-E SA	ISPORTATION					35.00	S.00 RFND VA		35.00				
EMD-105820000008	INT- FCI-0 1	PAX- DOE/JANE MS	RFIC-B SURFACE TRAN	REMARKS-	CPN-1 RFISC-0BM AY	DESCRIPTION-BUS TRAN	NON-EXCHANGEABLE	PRESENT TO-FINNAIR	PRESENT AT-NCE	SERVICE REMARKS-	FARE F EUR	EXCH VAL EUR 3	TAX-	TOTAL EUR	/FC	FP CASH	FOID-	

Figure 13 - EMD-S Exchanged.



EMD-1058200000009 TYI TNT- FCT-0 1	РЕ-S <b>РОТ-ИЕТ.</b>	SYS-1A LOC-Y4AWQL 1. ddt-26May10 tot-19491684	
DAX- DOR/JANE MS			
REIC-B SURFACE TRANSPORT	TATION		
REMARKS-			
CPN-1 RFISC-OBM AY	S-R	SAC- 10500009GSS95 VALUE-35.00	
DESCRIPTION-BUS TRANSPOR	TATION		
NON-EXCHANGEABLE			
PRESENT TO-FINNAIR			
PRESENT AT-NCE			
SERVICE REMARKS-			
FARE F EUR	35.00		
EXCH VAL EUR 35.00	RFND	ND VAL	
TAX –			
TOTAL EUR	35.00		
/FC			
FP CASH			
FOID-			
		Figure 14 – EMD-S Refunded	1
EMD-1058200000010 TYI	PE-S	SYS-1A LOC-Y4AWQL	
INT- FCI-0 1	POI-HEL	L DOI-26MAY10 IOI-19491684	
PAX- DOE/JANE MS		ADT	
RFIC-B SURFACE TRANSPOR'	TATION		
REMARKS-			
CPN-1 RFISC-OBM AY	S-V	SAC- 10500009GSS96 VALUE-35.00	
DESCRIPTION-BUS TRANSPOR	TATION		
NON-EXCHANGEABLE			
PRESENT TO-FINNAIR			
PRESENT AT-NCE			
SERVICE REMARKS-			
FARE F EUR	35.00		
EXCH VAL EUR 35.00	RFND	ND VAL	
rotal eur	35.00		
ריי ליי ליי			
FF CAJA			
		Finure 15 – FMD-S Voided	

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Figure 17 - Message Flow EMD- A Issue and Passenger Receipt Print - Interline

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EMD-A Associate



Figure 18 - Message Flow EMD-A Associate

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Figure 19 - Message Flow EMD Display - Interline

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Figure 210- Message Flow- Gain Control of EMD A - Interline

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# 8. REFERENCE DOCUMENTS

IATA Reference Document	Effective date	Where to find it
PSCR: Passenger Service Conference Resolution Manual - 30 <sup>th</sup> Edition	1 June 2010 - 31 May 2011	Go to : <u>www.iata.org/ps/publications/Pages/pscrm.aspx</u>
DISH – BSP Data Interchange Specifications Handbook – Revision 20.2	1 January 2008	Download under: <u>www.iata.org/ps/publications/Pages/bspdish.aspx</u>
DISH – BSP Data Interchange Specifications Handbook – Revision 20.3	1 March 2010	Download under: www.iata.org/ps/publications/Pages/bspdish.aspx
Passenger and Airport Data Interchange Standards (PADIS) Message Standards Document	Regular updates	Go to: <u>www.iata.org/ps/publications/Pages/9531.aspx</u>
Reservations Interline Message Procedures — Passenger (AIRIMP)	Regular updates	Go to: http://www.iata.org/ps/publications/Pages/AIRIMP.aspx
Documents related to EMD	Effective date	Where to find it
IATA EMD standard - Resolution 725fgh	1 June 2009	Part of PSCR manual: www.iata.org/ps/publications/Pages/pscrm.aspx
Recommended Practice 1720a – Attachment A STANDARD 13-DIGIT NUMBERING SYSTEM FOR TRAFFIC DOCUMENTS	1 June 2010	Part of PSCR manual: www.iata.org/ps/publications/Pages/pscrm.aspx
Additional services standard Recommended Practice 1790	1 June 2010	Part of PSCR manual: www.iata.org/ps/publications/Pages/pscrm.aspxl
Reason For Issuance Codes: (RFIC) Resolution 722f - Attachment A:	1 June 2010	Part of PSCR manual: www.iata.org/ps/publications/Pages/pscrm.aspx
Reason For Issuance Sub Codes: (RFISC)	Regular updates	Download under: http://info.atpco.net/download/OptionalSubCodes.pdf

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