2020 Implementation Forum #1 Geneva

A Summary

20 – 22 January 2020
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Agenda for the week

21 January: Implementation Forum with wider Implementer community  9:30 — 17:30
   • Dinner at Montreux Jazz 6:30pm

22 January: Implementation Forum with wider Implementer community  9:00 — 16:00
Meeting page: https://airtechzone.iata.org/community/events/#gva20
[9:30] Opening and Introductions

1. IATA highlights
2. Managed Travel – what’s important to TMCs
3. Implementing NDC for corporates – An airline perspective
4. Offers Workflow zoom
   • Describing offer conditions
   • Time Limits

[13:45] Offers workflow zoom cont’d

• Describing bag disclosure during offer time
• *Wildcard*

5. Voluntary changes
6. Implementing NDC in an OBT

Day ends 5:30

Lunch

18:30 Dinner
Who is in the room?

- Aggregator, 8
- Airline, 17
- IT Provider, 17
- Agent, 7
Introduction

What are 7 “must do’s” to implementing servicing successfully at a TMC?

What are 7 “must do’s” to implementing servicing successfully at an airline?

What are 10 features in the standard that must be considered to implement servicing successfully?
Perspectives – what’s important for servicing

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<td>• Refunds/automatic refunds</td>
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<td>Involuntary changes</td>
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<td>• Inconsistent process for NDC. Every airline is different</td>
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<td>• Service after Involuntary</td>
<td>Corp/negotiated fares</td>
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<td>• Standards are there but missing best practice for NDC</td>
<td>Servicing the limits</td>
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<td>Multiple FOP/ loyalty</td>
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<td>Reporting/ TMC Airline*</td>
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Presenters

IT Providers and Aggregators
- Aaron Group
- Amadeus
- Duffel (Startup)
- OpenJaw
- Pribas
- Sirena

TMCs
- Clarity
- Continent Express
- FCM

OBTs
- Rydoo

Airlines
- Aeroflot
- British Airways
- Condor
- LHG
- SAS

IATA
- Alex, Vanni, Thibaud
- Kitty, Oana, Shaunelle
Time Limits – results from table discussion

Need of an agreed (industry) approach to this so
1) This minimizes possible revenue loss for the airlines
2) TMCs/agents are not getting confused/ at risk

Prevent reprice if you have a price guarantee.

Corporates sometimes care deeply about price, some are more laid back and flexible

The ticket time limit updates in a minute after order was created

- No time limit delivered
  - If there is no field present for any time limit, it means there is no guarantee

1) Time limit for non-aviation third party ancillaries (ex: hotel booking, telecom)
2) Time limit slide from presentation raises more questions than answers. Every airline understands timelimits differently, especially extension of the timelimits

- Request extension of PTL by Seller (TO cases)
- Payment time, price changes but payment still processed
- Abuse of Time Limit. Airline should input mechanism to prevent seller abuse (repeat reshop performed)

- Payment Time Limit
- Warning Notification
- Order Service Notif
Offer conditions - results from table discussion

- Each OfferItem should describe their condition
- If we are doing mini rules we should do all of them.
- Where should the fare conditions be in the flow? Before ticket issuance
- Should be available in the offerlist and should be structured
- All other conditions can be requested by additional request which can be partially made
- Airshopping time
- More detailed OfferPrice

Should be displayed wherever there is a price and only the conditions that could potentially affect the price.
- Many like min/max should not be needed
- Summarized offer conditions, like fare rules and payment rules clearly stated so that end user can compare offers and select
- Provision to specify offer conditions as part of search request. E.g Flexifares
- All inclusions to be specified clearly e.g. bundles including different ancillaries

- Conditions to be rehearsed as part of AirShoppingRS, Confirm Price, Order Reshop
- Minimum
  - refundable - changeable
- Will this be necessary at all in future? (to return details in flight)
- As part of the offer
- Cancellations
  - Changes
  - Minimum stay
  - Maximum stay
  - Miles
- Baggage, fast track, lounge, limo service, wifi, ancillary services
How are you expecting NDC@Scale to benefit you as

Airline
- Handle increasing transaction volumes via NDC API
- Better price steering, Individualization
- Focusing on the sandbox aspect, this reduces the time to market and the number of aggregator/sellers that can be onboarded at the same time is increased.
- To have a systematic way of tracking all our deliverables to make sure what we are building is fit for our purpose and are fulfilling the industry use cases
- Focus attention and resources on delivering and building what matters
- Scale requirements provide the well-established directions and must do's to expand NDC.
- It’s a vote of confidence in our NDC implementation
- Credibility, performance efficiency/successful sale

Sellers
- Stability of the airline's IT solution (any evidence)
- "Business Travel Ready" airline recognition
- It is standardization
- System availability is guaranteed
- Credibility, performance efficiency/successful sale

Aggregator
- System availability is guaranteed
- Credibility, performance efficiency /successful sale
- Validation/marketing of our capabilities
Payments - results from table discussion

• FoP CASH, Credit Card
• Wish to implement combined payment with Gift Certificates (CC+G.C) Challenge because PSS not fully supporting the document
• Do not apply surcharges on specific FoPs
• Credit Card Fees, - What is the flow of BIN passed in offer Price then another form of payment of order payment time –no guidance no best practice
• BSP Cash
• Preferred airline form of payment
• Solutions should look beyond just air as it is an industry wide problem and will affect inter-operability
• Airlines Revenue acting Departments and Distribution needs to create a work group To solution only "payments", this outcome can go to NDC/OO workgroups
• UA: Plan to support multiple FoPs, but not across some Order Items, Current supported: CC, BSP, Challenge: Alipay
• An airline should control on their side double bookings
• 3DS is a challenge
Error handling - results from table discussion

- Negative use cases should be included in sandbox
- Include requirement to negative use cases in sandbox along with error message
- 3 different types of failures - validation error – recoverable error – unrecoverable error
- Error messages are too vague. Other industries associate bugs back to the team that caused them
- We are coming up with many solutions. Not all of which will work. The standard should deliver a solution for all: a.) seller generate ID assumes that seller has order management b.) Notif "will" require a seller side end point
- Agree better use of error codes can reduce support to airlines
- Warning codes would be very useful! (To advice seller on next steps)
- Machine readable codes
- Discoverability once error happens
- Warning on Items
- +1 BA returning Order ID when error happens
- NDC @Scale to include negative test cases
- Error codes implemented according to standard
- Further specification will be defined based on practice and sellers' feedback
Gaps – Change Request candidate

- Examples of private fare use cases in the Imp Guide
- Wet lease
- Notif – not related to Order Changes

Explore ‘discoverability’ as an approach to dealing with differences in implementations
Blocker areas

(Consistent) Use of:
- Time Limits
- Offer Conditions
- Codeset
- Reason Codes

Unclear handling of:
- Unused tickets
- Combinability
- Errors and recovery
- Multi-payment:
  - Against a single order item – what to do when refunding
  - With multiple cards how to handle 3DS authentication

Others
- Implementation Guidance on specific features
- API uptime
- BSP sandbox to support E2E testing
Other post-it points captured

• After accepted changes to a disrupted flight, the airline should retain the context of the event/interaction and be perceptive of subsequent changes vs REA

• Privacy of services needs to be managed at an OMS level – this also drives the version of the order per subscriber e.g. religious meals
Thank you
IATA presentations
NDC Matchmaker

SEARCH | COMPARE | CONNECT

with NDC partners

www.iata.org/ndc-matchmaker

New!

Featuring more than 200 connections!
Already on the NDC Matchmaker – In the room

- **Aeroflot**
- **Air France KLM**
- **Avianca**
- **British Airways**
- **Condor**
- **Lufthansa Group**
- **Singapore Airlines**
- **United Airlines**

- **AARON Group**
- **Duffel**
- **JSC “Sirena Travel”**

- **Flight Centre**
Implementation Tools
Agenda – January 21, 2020

[9:30] Opening and Introductions
1. IATA highlights
2. Managed Travel – what’s important to TMCs
3. Implementing NDC for corporates – An airline perspective
4. Offers Workflow zoom
   • Describing offer conditions
   • Time Limits

[13:45] Offers workflow zoom cont’d
   • Describing bag disclosure during offer time
   • *Wildcard*
5. Voluntary changes
6. Implementing NDC in an OBT

Day ends 5:30

Lunch
18:30 Dinner
Managed Travel – what’s important to TMCs
What’s important to TMCs

Airline interaction
- Easy onboarding processes
- API Operational support
- Strong account management

Interfaces
- Showing the value of the product in the OBT
- Seamless feeds for downstream processes and co-existing with GDS bookings

Capabilities
- Relevant to managed travel processes
- Better than today
- Certification @scale

Consistent, complete, data in the schema to support automation and decision making
- Data formats
- Description of products
- Machine-readable rules
- Consistent approach in implementation of schema

Workflows
- Answering the question asked
- Consistent implementation from airline to airline
- That support automation and transparency

Other Challenges
- PSD2
- Infosec (GDPR)
- Client Expectations
- Time Constraints
- Lack of accurate info from Account Mgrs
TMC Adoption Blockers

1. Industry Players are not Ready
2. Workflows & Capabilities
3. Value Chain NDC Engagement
4. Frictionless Onboarding (technical)
5. Unlearn Listen Act
TMC Adoption Blockers

1. Industry Players are not Ready

2. Workflows & Capabilities
   - Inconsistent workflows and solution logic from airline to airline

3. Value Chain NDC Engagement

4. Frictionless Onboarding (technical)

5. Unlearn Listen Act
   - Offers and Orders vs. current processes
TMC Adoption Blockers

1. Industry Players are not Ready
2. Workflows & Capabilities
3. Value Chain NDC Engagement
4. **Frictionless Onboarding (technical)**
   - Implementation and operational support during Onboarding
5. Unlearn Listen Act
   - Complete documentation
TMC Adoption Blockers

1. Industry Players are not Ready
2. Workflows & Capabilities
3. Value Chain NDC Engagement
4. Frictionless Onboarding (technical)

5. Unlearn Listen Act

WHAT vs. HOW we’ve always done it
Implementers presentation

Clarity, Continent Express, FCM
Implementing NDC for corporates – An airline perspective

LHG
Workflow zoom - how are you implementing these?
Workflow Zoom

Day 1
Time limits
Describing offer conditions
Describing bag disclosure

Day 2
Payments
Error and recovery handling
Implementing reason codes
Time Limits

- Inventory Guarantee is implied in an Order
- PriceGuarantee can be extended in the Order (but not shortened)
- PaymentTL can be extended in the Order (but not shortened)
Time limits
Implementation challenges

• What are the challenges in honoring these time limits?

• Time limit/ corporate approval processes – your experiences?

• Any other challenges?
Describing offer conditions

• This covers
  • To describe offers and products in a way that makes it easy to compare and make decisions.

• Relevant CRs
  • 145a – Offer and Order Restrictions for Change, Cancel, Stopover

Messages that support offer conditions

• AirShoppingRS
• OfferPriceRS
• OrderViewRS
• OrderReshopRS
• ServiceListRS
• SeatAvailabilityRS
• OrderHistoryRS
• OrderChangeNotif
Implementers presentation

Aeroflot, Amadeus
Describing offer conditions
Implementation challenges

• Where in the flow should these be shown? What level of detail is needed at each stage?

• Which offer conditions should be returned?

• Any others?
Bag disclosure

- This covers
  - To disclose information about luggage, both included checked and hand luggage allowances and charges for additional allowance.
  - Can be during the offer flow or as a post order activity

- Messages that support bag disclosure
  - AirShoppingRS
  - OfferPriceRS
  - OrderViewRS
  - OrderReshopRS
  - ServiceListRS
  - OrderHistoryRS
  - OrderChangeNotif

Implementation challenges

- How to show structured rules and prices for bag allowance, 1\textsuperscript{st} bag, 2\textsuperscript{nd} and so on?
- How to handle complex rules such as high tier FFP holder entitled to extra piece/weight, sporting equipment to be combined with luggage as part of free baggage allowance, etc.
Implementers presentation

Aaron Group
Rich content

- This covers
  - To be able to visually show the product offered

- Relevant CRs
  - Planned for 20.2
    - 147s – Rich media
    - 147u – Language and locale

Implementation challenges

- What are the industry expectations surrounding Rich Content?
- What is the value of Rich Content for TMCs?
- At what level should Rich content be included? At a service level?
- Internationalization (i18n) within the messages?
Servicing zoom - how are you implementing these?
Voluntary Changes

- Re-shopping
- Cancellations
  - Pax states intent to *re-spend* or *refund*
  - Penalty can be netted into refund amount or made payable separately to trigger refund
- Reinforces use of OrderReshop to simulate outcome of operation

<table>
<thead>
<tr>
<th>Seller</th>
<th>Airline</th>
</tr>
</thead>
</table>
| OrderID OR001
  GVA-LHR
  Dep 12:00
  LHR-GVA
  Dep 23:20 |
| OrderReshopRQ
  Cancel LHR-GVA
  Refund |
| OrderReshopRS
  GVA-LHR
  Dep 12:00
  LHR-GVA – **Canc.** + Penalty |
| OrderChangeRQ
  Accept Change |

Price differential equipped to indicate AddCol, Reusable item, Residual values, Refundable amounts, etc.
Voluntary Changes

Status at Service level
- Mark items as cancelled (opt. supplemented by Coupon-level status)
- Fully cancelled items can be viewed through OrderHistory

New indicator in cancelled OrderItems
- Shows that there is potentially a reusable amount
- Reusable amount, when known, is reflected as a Residual amount

Services can be shown as “unchanged” in Reshop simulation (e.g. partially-flown segment)
Implementers presentation

OpenJaw
Implementing NDC at an OBT—what's involved
Implementers presentation

Rydoo, Duffel
Agenda – January 22, 2020

[9:00] Day 2 Opening

1. NDC@Scale
   • Impact on the value chain
   • Lessons learnt

2. Airline Highlight

3. Orders Workflow zoom
   • Multi payment by single payer
     - [Breakout] What payment forms have you implemented? What do you want to implement but it’s a challenge?
   • Implementing reason codes during Reshop
   • Error and Recovery handling

[13:30]

4. Orders Workflow zoom cont’d
   • *Wildcard*

5. Involuntary changes – History of an Order; Notification of changes

6. Aggregation in NDC

7. Full Order Management – a world without tickets

8. Wrap-up

12:30 Lunch

Day ends 4:00
NDC@Scale
NDC@Scale
BA, Pribas
How are you expecting NDC@Scale to benefit you as

- Airline
- Seller
- Aggregator
Airline Highlight

SAS
Workflow zoom - how are you implementing these?
Reminder - Raising a CR

Simple Work Item Template
Email to standards@iata.org
Workflow Zoom

Day 1
Time limits
Describing offer conditions
Describing bag disclosure

Day 2
Payment
Error and recovery handling
Implementing reason codes
Multiple payments

This covers

- Payment of whole offer with multiple FoPs
- Payment of different items within the offer with different FoPs

- Relevant CRs
  - 128 – Redirection to a hosted payment page during payment
  - 129 – Support 3DS 2.0 for Card Payment in the NDC schemas
  - 136 – Accepted Payment Instruments and Associated Surcharges
  - 148 – Supporting EasyPay in the NDC and OO schemas
  - Planned for 20.1: Loyalty Mileage, Lodge Card, Split Payments

Breakout

- What payment forms have you implemented?
- What payment feature do you want to implement but it’s a challenge?
- How to handle surcharges with multiple payments?
  - State up front which FoPs will be used and how much on each?
Error and recovery handling

- This covers
  - Explaining more concisely what has gone wrong
  - Having clear definitions on what to do when things go wrong
- Relevant CRs
  - 104(a-d) (Planned for 20.2)

Implementation challenges

- Error messages are unclear for example “Ticket data invalid”
- More thought needed on how to explain errors to integrators and help them to recover
- IT operational support by airlines could be reviewed
Implementing reason codes

REA Reason for action
1. Sched change – flight number change
2. Sched change – flight retimed
3. Sched change – flight cancelled
4. Sched change – permanent withdrawal of service
5. Sched change – labor dispute
6. Bereavement
7. Illness
8. Voluntary
9. No reason given
10. Unable to obtain necessary documentation
11. Strike
12. Weather
13. Natural disaster
14. Unacceptable reaccommodation

Are any other REA codes needed? For example:
- Name Change
- Contact Change
- Payment Status Update
- Segment Time Change
- Flight Number Change
- Segment Change
- Segment Cancel
- Equipment Change

Messages that support REA:
- OrderReshopRQ
- OrderChangeRQ
- SeatAvailabilityRQ
- ServiceListRQ
- OrderViewRS
- OrderHistoryRS
- OrderChangeNotif
Involuntary servicing zoom - how are you implementing these?
Involuntary Changes

- Schedule Changes
- Disruption
- Pax Details
- Payment Status

OrderID OR001 v1
GVA-LHR
Dep 12:00
LHR-GVA
Dep 19:30

Pax Details
Service Details
Payment Txn

OrderID OR001 v2
GVA-LHR
Dep 12:00
LHR-GVA
Dep 23:20

Acceptance Indicator
Follow-Up Actions

OrderChangeNotifRQ

Sched Change

Pax is required to accept change or reshop/cancel(refund)

Airline can specify consequence of inaction
<ChangeOperation>
  <ChangeDateTime>2019-04-19T09:43:12Z</ChangeDateTime>
  <OrderVersion>2</OrderVersion>
  <ChangeTypeCode>SEGTIMECHNG</ChangeTypeCode>
  <ReasonCode>SCHEDCHNG</ReasonCode>
  <Old>
    <DataLists>
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    </DataLists>
  </Old>
  <New>
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          <Dep>
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          </Dep>
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        </PaxSegment>
      </PaxSegmentList>
    </DataLists>
  </New>
</ChangeOperation>

- Sync changes
- Order versioning
- Seller aware of gaps in changes
- Lean payload: only changed data is sent
- OrderHistoryRQ/RS match OCN design
Aggregation in NDC
Full Order Management