Cross Channel Order Access & Security
An Exemplary Approach

IATA NDC Implementers Forum, May 2020
pribas in a nutshell

- A privately owned IT company with 30 years of experience in Aviation & Travel
- 40 employees based in Frankfurt and Antalya
- Mission: Support and advance the NDC & ONE Order standards
- Core product: AirBroker Suite, an inventory independent sales & integration platform based on the ONE Order principles
Use Case 1: Cross Channel Access Sample

1. Order is created through Aggregator A
2a. External Call Center with direct NDC connection requires access to the Order
2b. External Call Center with connection through a different Aggregator B requires access
3. Passenger wants to access the Order through airline.com to book ancillaries which are not offered by his agent
Distribution Channel Orchestration

- All non-GDS distribution channels are orchestrated
- One central Security Model for all these channels is in place
- Concurrent access to Orders from different channels is supported
PSS Independency

- Several PSS and non-air systems with different Security Models can be connected
- An independent and comprehensive Security Model is required
- Where needed, the Security Model is mapped to the logic of the connected inventories e.g. Office ID, PCC
AirBroker Security Model

- **Org-Unit**
  - Companies or individual departments
  - Underlying hierarchical structure
  - Location-independent agency#

- **Users**
  - Are either persons or technical Users (e.g. NDC partners)
  - Have credentials assigned to access the system
  - Are allocated to Org-Unit(s)
  - Can have one or multiple Roles assigned
  - Have access to Orders of their agency# by default

- **Roles**
  - Define permitted actions

*B2C Users are treated as “special” Agencies and are not considered here in detail*
Organization Structure and Users

Sample of internal organization

Sample of external partner organization
Assignment & Flow Of Permissions

- User needs credentials to access the system
- Entry point checks credentials and retrieves
  - Assigned roles (= permissions)
  - Organizational unit with agency#
- Offer & Order Management are completely based on agency# and Roles
  - Determine available tariffs
  - Allowed actions
  - Orders are assigned to an agency#
- For access to an external system, the agency# is mapped to a corresponding attribute, e.g. Office ID, PCC or similar
Sample Use in NDC

The image shows a screenshot of a software interface with a developer mode for NDC (New Distribution Capability) booking. The interface allows users to search for flights by specifying options such as one-way or round-trip, flight from, flight to, adults, and children. The developer mode includes options to enable debugging and setting developer mode.

In the code snippet, an XML request is shown for an Air Shopping request. The XML structure includes elements such as Sender, FlightCriteria, SpecificOriginDestCriteria, OriginID, DestinationID, and PAX Journey. The request also includes parameters for origin and destination codes, e.g., IATA, location codes, and dates.

The interface and code snippet demonstrate how NDC can be used for booking flights, with a focus on security and implementation details.
## Sample Roles

### Sample role of NDC Partner
- All FOP allowed

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Value</th>
<th>Inheritance</th>
</tr>
</thead>
<tbody>
<tr>
<td>ndc.fop.enable-editing-agency</td>
<td>Permission to change the agency in the ndcexplorer</td>
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<td>NDC</td>
</tr>
<tr>
<td>ndc.fop.enable-editing-corporatecode</td>
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### Sample role of NDC Partner
- Only CC allowed

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Registration & Self Management for Partners

- Web based registration process
  - Users such as NDC Partners, Agencies etc. can apply for access to all available channels via web page
  - Entered registration data is placed on a queue
  - Airline checks requirements and may accept / decline request
  - Two-phase approval process is supported
  - Answer and – if positive – credentials are sent to the User
- Airline assigns permissions to external Partner
- Partners can create their own sub-structure and Users
- Permissions cannot exceed the permissions assigned by the Airline
Mapping of an Agency to PSS

- Agencies are mapped to the destination PSS needs, e.g. Office ID's
Access to other Agency`s Orders

- Org-Units may be given the permission to access Orders of other Agencies
- Org-Units can create Orders on behalf of other Agencies

More detailed access restrictions are planned, e.g. view only, add ancillaries …

Unknown Users in B2C require additional information
Use Case 2: Cross Channel Service Privacy & Protection

1. Customer Order is created through a Tour Operator and includes a seat reservation. Booking and seat reservation receive Tour Operator agency number as originator.

2. Customer retrieves Order through airline.com (providing necessary details for identification). Order with flights and seat reservation are displayed, cannot be changed, TO prices are hidden. Customer may add additional services or change services that have been created by her-/himself. Additional services receive airline.com agency number as originator.

3. Tour Operator retrieves Order through NDC and may see customer’s ancillaries but may not change.
Summary

We strongly believe that Airlines need a fully customizable, central order access and security system to not only complement the NDC standards, but also to meet the expanded needs of their Distribution Partners.

Thanks for your attention – Questions?