

Cross Channel Order Access & Security

An Exemplary Approach



IATA NDC Implementers Forum, May 2020

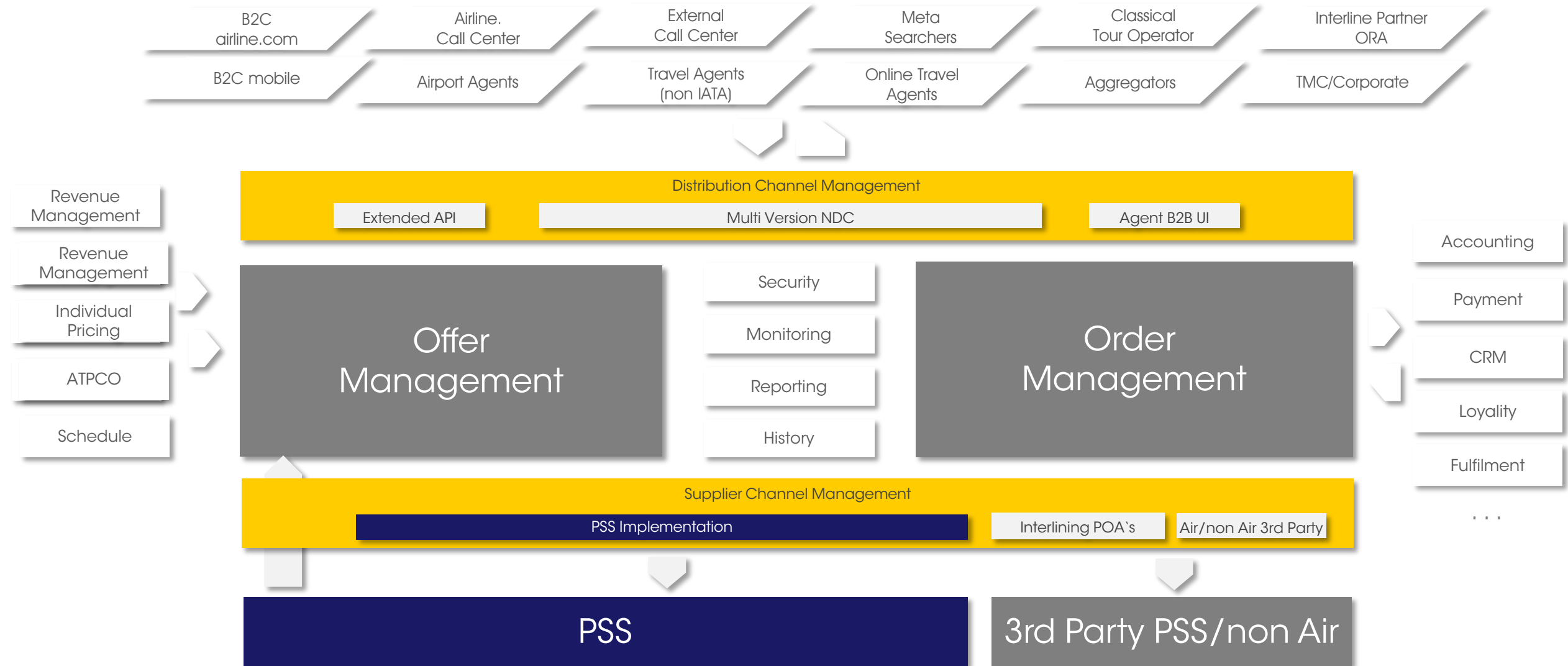
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D-65817 Eppstein-Bremthal

pribas Turkey Ltd.
Akdeniz University
Teknokent Ulugbey
AR-GE Binasi K:1 No:11
TR-07058 Campus ANTALYA
<https://www.pribas.com>

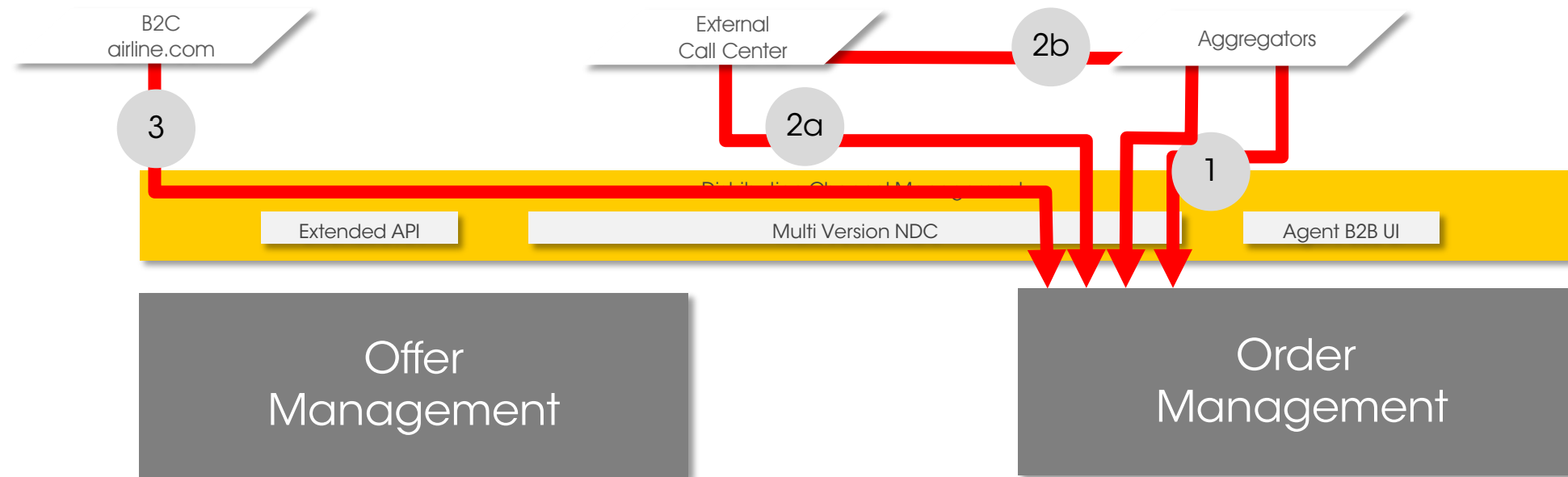
pribas in a nutshell

- 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

AirBroker Sample Setup

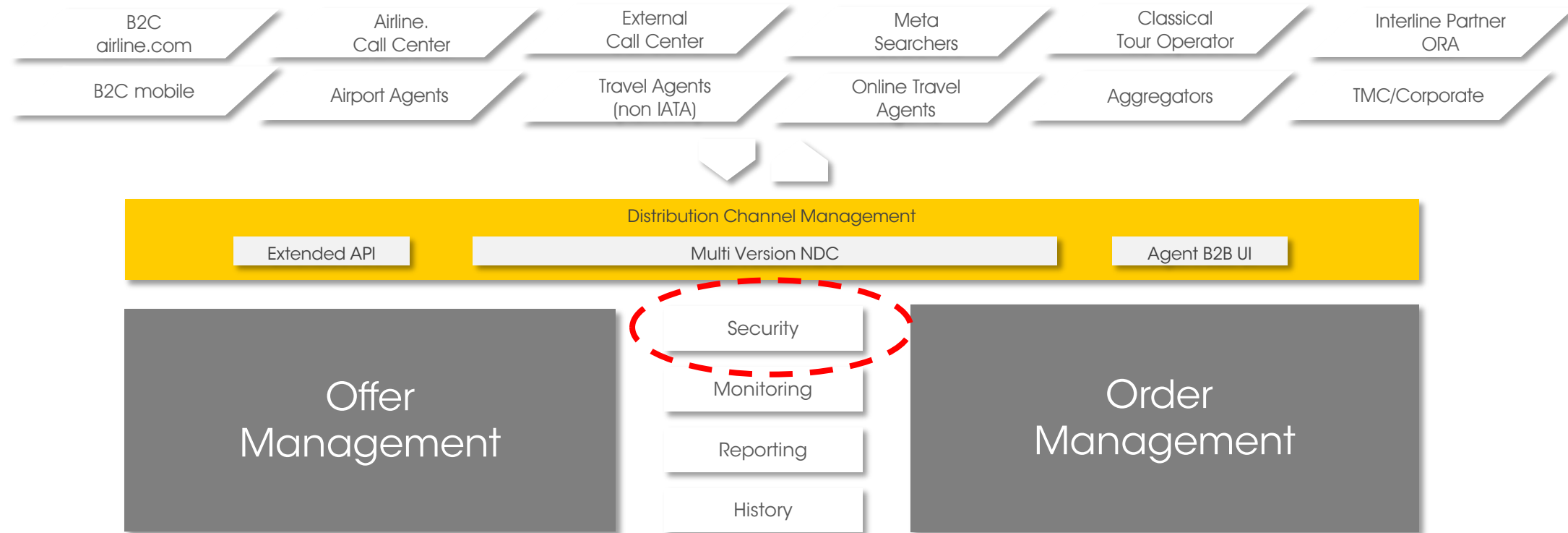


Use Case 1: Cross Channel Access Sample



- 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

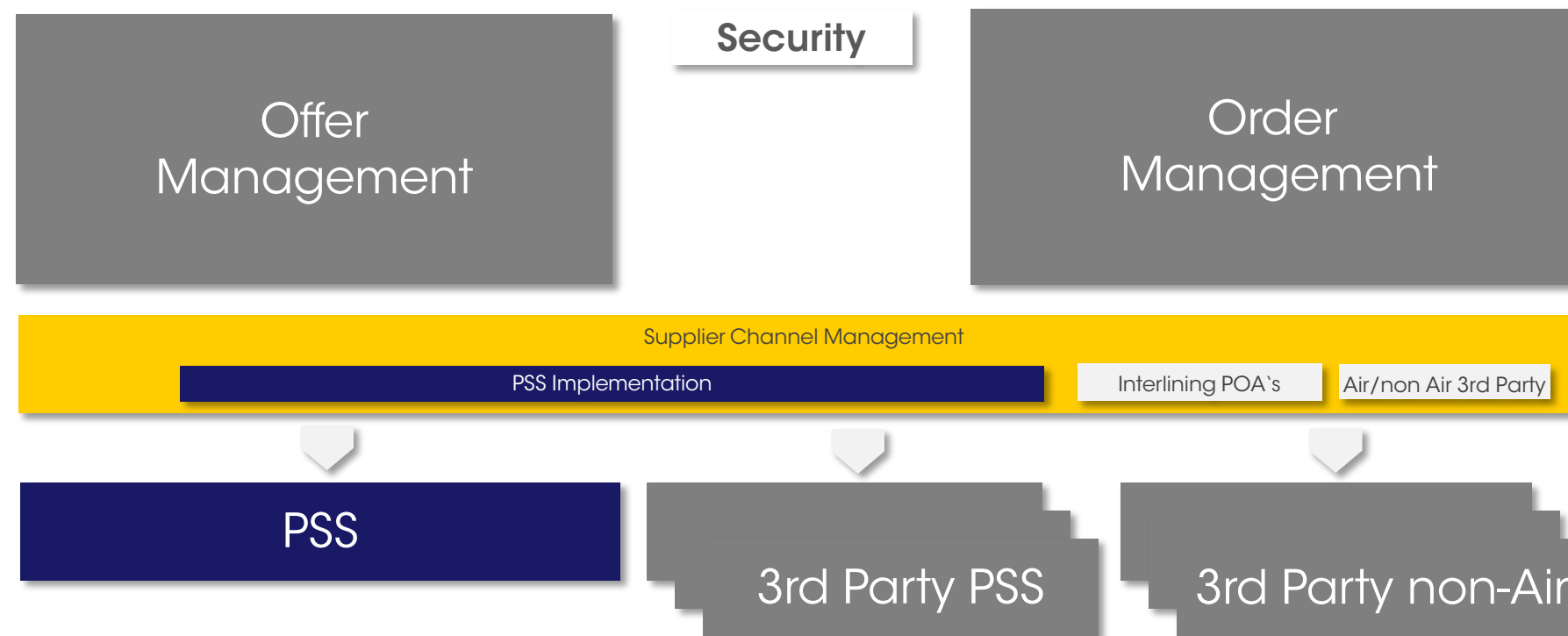
Distribution Channel Orchestration



- 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

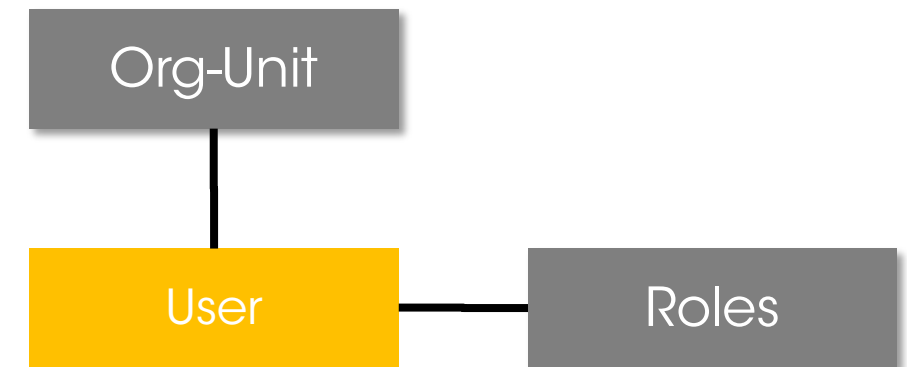
PSS Independence

- 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

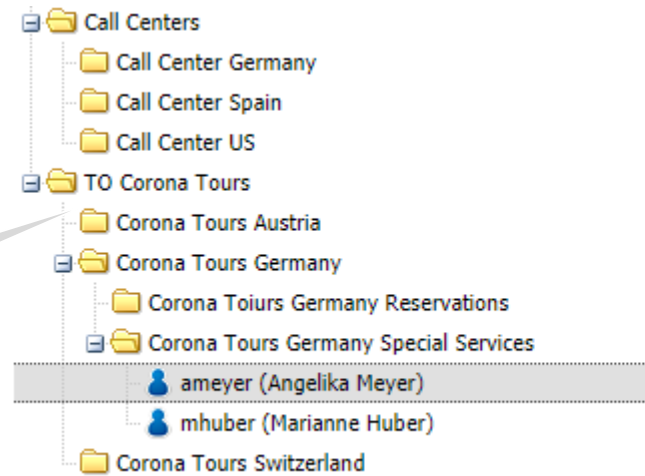
- Org-Unit
 - Companies or individual departments
 - Underlying hierarchical structure
 - Location-independent agency#
- Users
 - Are either persons or technical Users (e.g. NDC partners)
 - Have credentials assigned to access the system
 - Are allocated to Org-Unit(s)
 - Can have one or multiple Roles 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

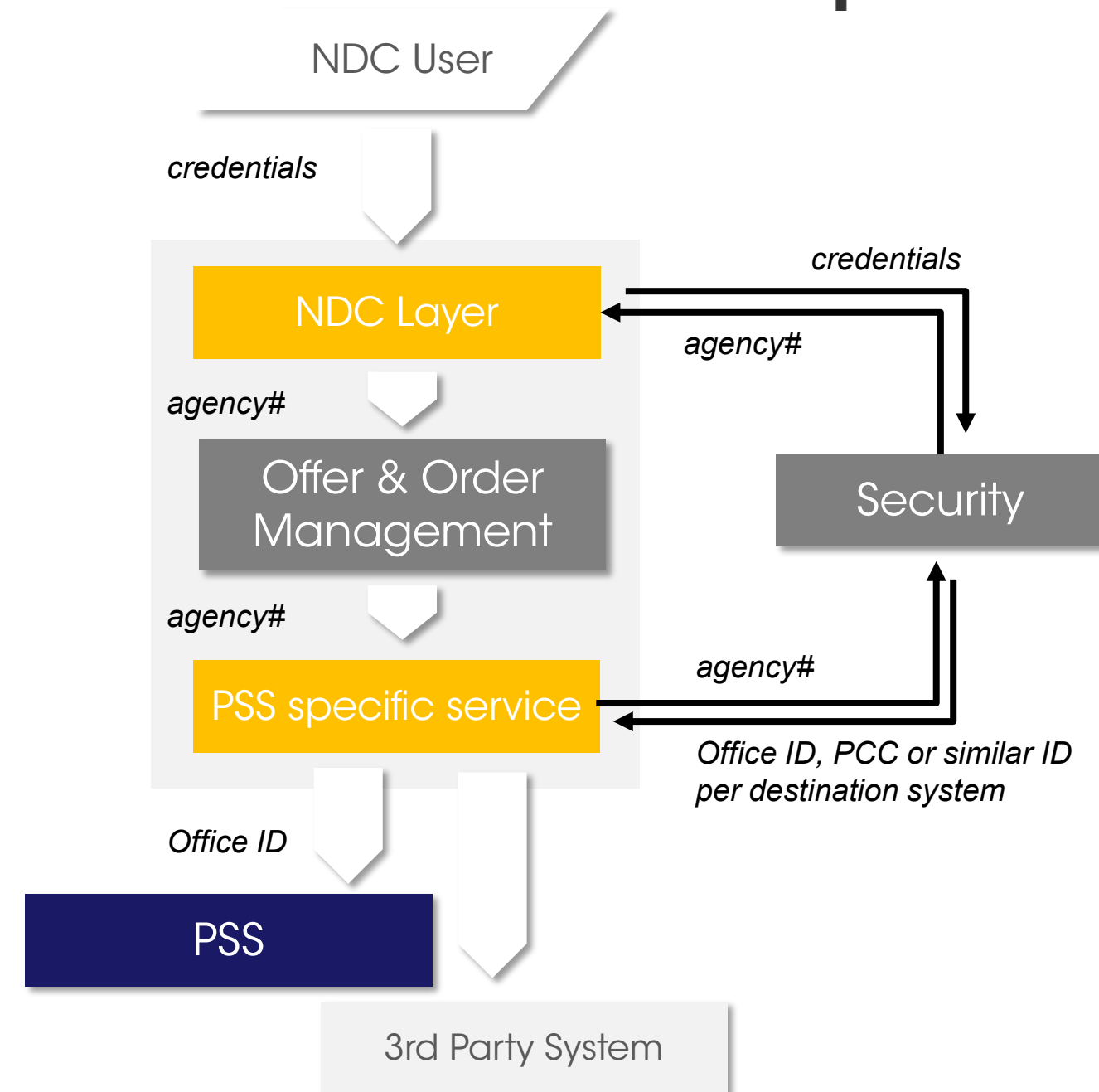


Sample of external partner organization

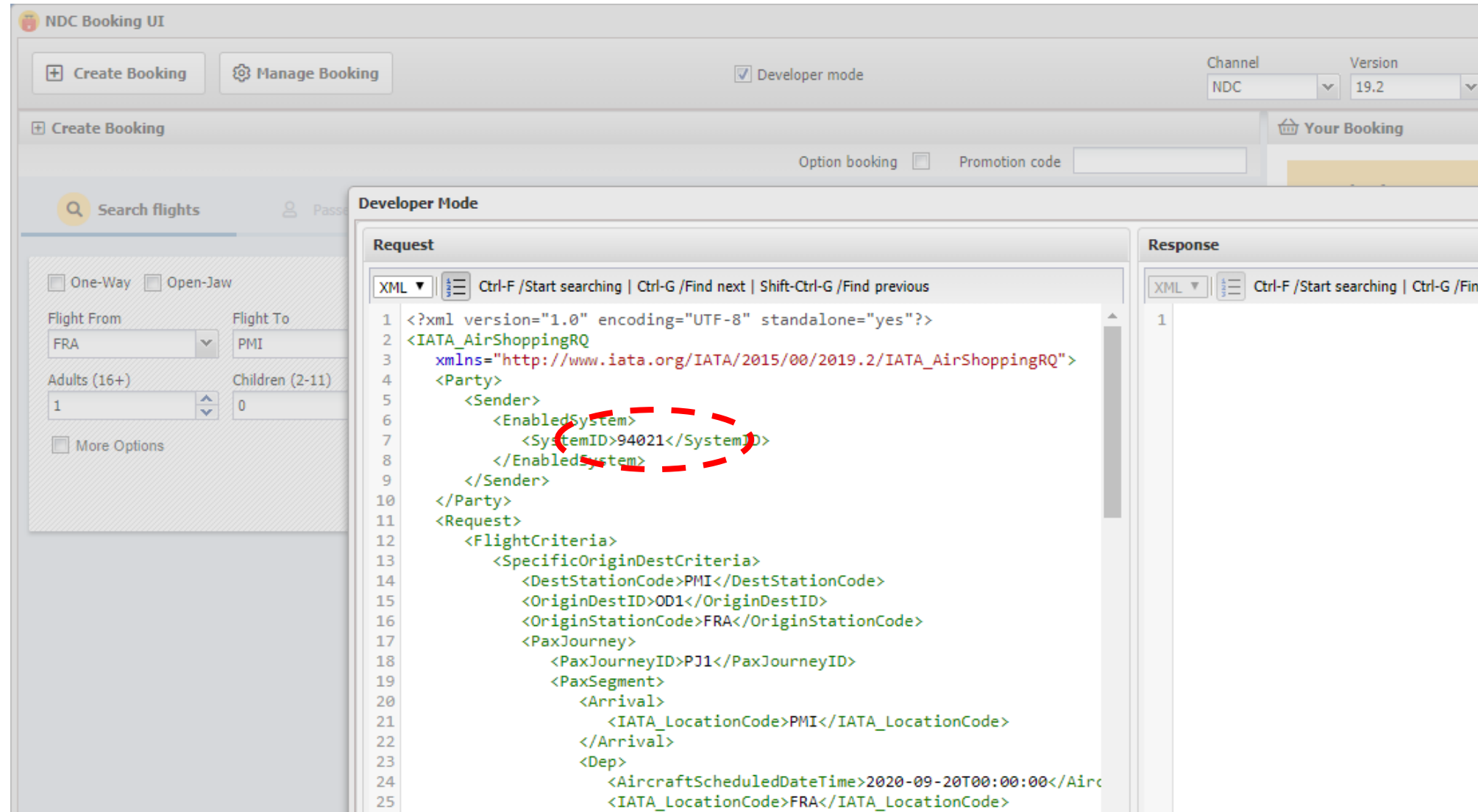
PROPERTIES				
General				
#	Name	Description	Value	Inheritance
1	language	Set the default language of the u...	de	TO Corona Tours
2	currency	Set the default currency of the u...	EUR	TO Corona Tours

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 screenshot displays the NDC Booking UI interface. On the left, there is a search form with the following details:

- Flight From: FRA
- Flight To: PMI
- Adults (16+): 1
- Children (2-11): 0

The main area shows a 'Developer Mode' window with two panes: 'Request' and 'Response'. The 'Request' pane contains the following XML code:

```

1 <?xml version="1.0" encoding="UTF-8" standalone="yes"?>
2 <IATA_AirShoppingRQ
3   xmlns="http://www.iata.org/IATA/2015/00/2019.2/IATA_AirShoppingRQ">
4   <Party>
5     <Sender>
6       <EnabledSystem>
7         <SystemID>94021</SystemID>
8       </EnabledSystem>
9     </Sender>
10  </Party>
11  <Request>
12    <FlightCriteria>
13      <SpecificOriginDestCriteria>
14        <DestStationCode>PMI</DestStationCode>
15        <OriginDestID>OD1</OriginDestID>
16        <OriginStationCode>FRA</OriginStationCode>
17      <PaxJourney>
18        <PaxJourneyID>PJ1</PaxJourneyID>
19        <PaxSegment>
20          <Arrival>
21            <IATA_LocationCode>PMI</IATA_LocationCode>
22          </Arrival>
23          <Dep>
24            <AircraftScheduledDateTime>2020-09-20T00:00:00</Airc
25            <IATA_LocationCode>FRA</IATA_LocationCode>

```

The 'Response' pane is currently empty, showing only the number '1'.

Sample Roles

Sample role of NDC Partner
all FOP allowed

ndc				
masterdata				
Sub Role Details				
				<input type="checkbox"/> Select All Boolean-Permissions Save
Name	Description	Value	Inheritance	
ndcxplorer.enable-editing.agency	Permission to change the agency in the ndcxplo...	true	NDC	
ndcxplorer.enable-editing.corporatecode	Permission to change the corporate code in the n...	false	NDC	
ndc.fop.cc	Permission to use credit card payment FOP in the...	true	NDC	
ndc.fop.sepa	Permission to use SEPA payment FOP in the ndcx...	true	NDC	
ndc.fop.cash	Permission to use cash payment FOP in the ndcx...	true	NDC	

Sample role of NDC Partner
only CC allowed

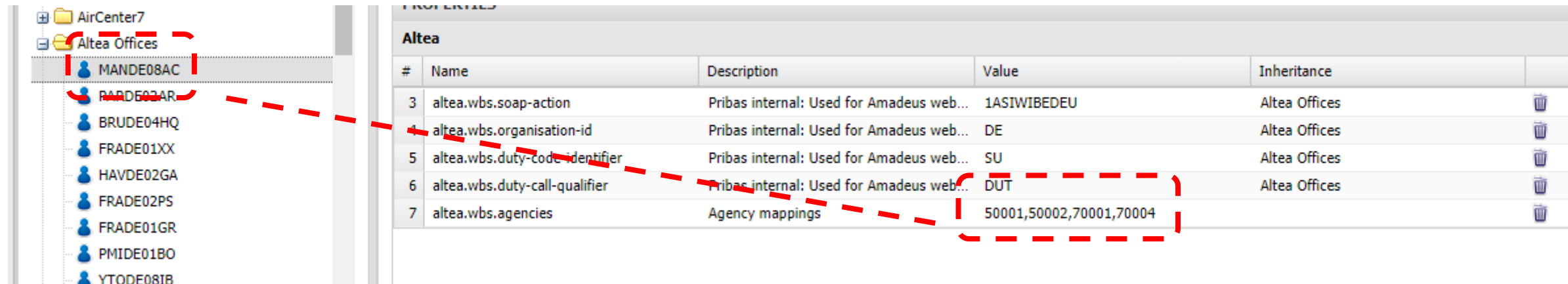
ndc				
masterdata				
Sub Role Details				
				<input type="checkbox"/> Select All Boolean-Permissions Save
Name	Description	Value	Inheritance	
ndcxplorer.enable-editing.agency	Permission to change the agency in the ndcxplo...	false	NDC	
ndcxplorer.enable-editing.corporatecode	Permission to change the corporate code in the n...	false	NDC	
ndc.fop.cc	Permission to use credit card payment FOP in the...	true	NDC	
ndc.fop.sepa	Permission to use SEPA payment FOP in the ndcx...	false	NDC	
ndc.fop.cash	Permission to use cash payment FOP in the ndcx...	false	NDC	

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

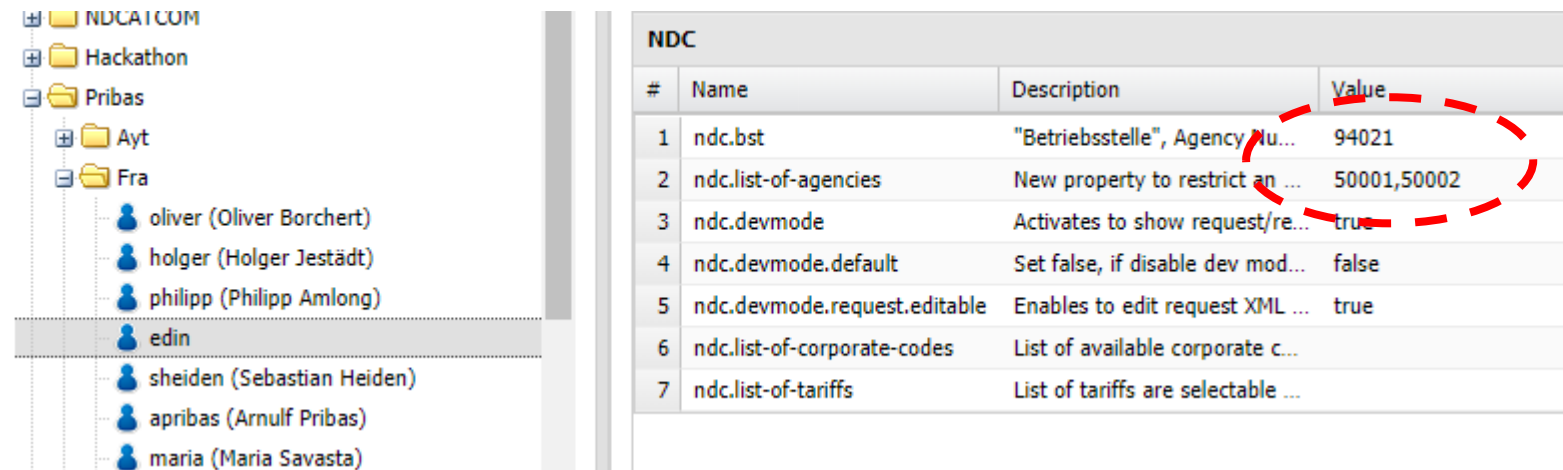
- Agencies are mapped to the destination PSS needs, e.g. Office ID's



#	Name	Description	Value	Inheritance
3	altea.wbs.soap-action	Pribas internal: Used for Amadeus web...	1ASIWIBEDEU	Altea Offices
4	altea.wbs.organisation-id	Pribas internal: Used for Amadeus web...	DE	Altea Offices
5	altea.wbs.duty-code-identifier	Pribas internal: Used for Amadeus web...	SU	Altea Offices
6	altea.wbs.duty-call-qualifier	Pribas internal: Used for Amadeus web...	DUT	Altea Offices
7	altea.wbs.agencies	Agency mappings	50001,50002,70001,70004	

Access to other Agency's Orders

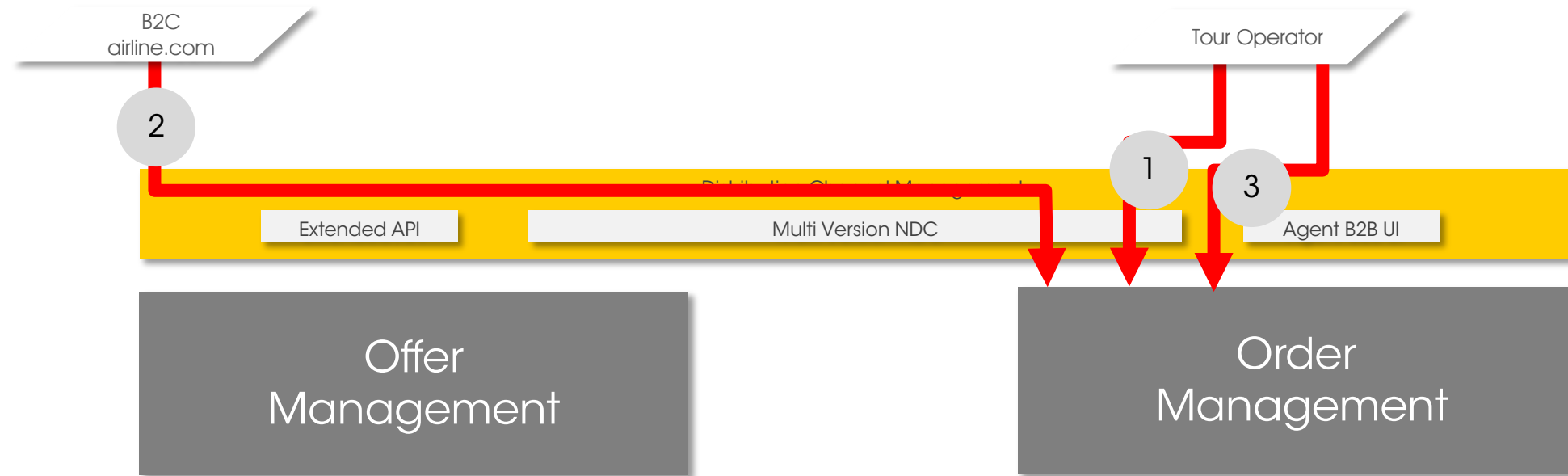
- Org-Units may be given the permission to access Orders of other Agencies
- Org-Units can create Orders on behalf of other Agencies



#	Name	Description	Value
1	ndc.bst	"Betriebsstelle", Agency Nu...	94021
2	ndc.list-of-agencies	New property to restrict an ...	50001,50002
3	ndc.devmode	Activates to show request/re...	true
4	ndc.devmode.default	Set false, if disable dev mod...	false
5	ndc.devmode.request.editable	Enables to edit request XML ...	true
6	ndc.list-of-corporate-codes	List of available corporate c...	
7	ndc.list-of-tariffs	List of tariffs are selectable ...	

- 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?