Working with “full” and “partial” offers in AirShopping: an aggregator’s perspective
AirShopping allows us to request offers from an airline that meet specific criteria.
LHR-YMQ
1st June 2019

YMQ-LHR
8th June 2019

Business Class
There are two distinct ways in which airlines present these offers: “full” and “partial”
Sometimes, partial offers are referred to as “branded offers”
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<th>Origin</th>
<th>Destination</th>
<th>Departure Time</th>
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<td>22:00</td>
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**Options:**

- D1001 + D1003
- D1001 + D1004
- D1002 + D1003
- D1002 + D1004
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**Return Flight**

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Offer 1
LHR- YMQ
D1001 on 1st June

Offer 2
LHR- YMQ
D1002 on 1st June

Offer 3
YMQ- LHR
D1003 on 8th June

Offer 4
YMQ- LHR
D1004 on 8th June
Why does full vs. partial matter?
Multiple workflows means more work for integrators
“Full” offers lead to very large HTTP responses
...but compression, for example Gzip, means this isn’t such a big problem
“Full” offers mean more work on the airline’s side, and so slower response times.
Partial offers have two big disadvantages
Short-term challenges for integrators
Long-term risks for airlines, as NDC evolves
1. “Partial” offers mean that every integrator has to understand which offers can be combined together
LHR-CDG
1st June 2019

CDG-LHR
1st June 2019

Business Class
Basic
LHR-YMQ
DU001 on 1st June
Offer 1

Basic
YMQ-LHR
DU003 on 8th June
Offer 3

Basic
LHR-YMQ
DU002 on 1st June
Offer 2

Premium
YMQ-LHR
DU004 on 8th June
Offer 4

Offer 1 + 3
Offer 1 + 4
Offer 2 + 3
Offer 2 + 4
There is no way in the NDC schema to specify what “partial” offers can be combined together.
2. “Partial” offers mean that every integrator has to understand *what happens* when you combine offers together
Offer 1

LHR- YMQ
D1001 on 1st June

1 x 30kg bag

Offer 3

YMQ- LHR
D1003 on 8th June

2 x 23kg bag
"If your journey includes a mix of BA and other airline codes (e.g. AA1122 or IB3210) you will get the allowance of the most significant carrier"
Offer 1

1 x 30kg bag

Offer 3

2 x 23kg bag
It’s hard to imagine how you could handle these kinds of edge cases in the NDC schemas.
As an NDC integrator, I have to know all of these business rules, and build them in to my application.
I have to keep my application up to date as these rules change.
As an aggregator, I have to do this for every airline I integrate with
...and this isn’t just me. This work gets duplicated across every NDC integration.
These business rules end up “hard coded” into hundreds or even thousands of integrations.
This represents a long-term risk for airlines, as these rules will become hard to change.
Full offers don’t have these problems, because all of these business rules can live on the airline’s side.
**Departing Flight**  Modify search
London (YUL) to Montreal (YUL) Saturday, June 1st, 2019

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**Return Flight**  Modify search
Montreal (YUL) to London (LHR) Saturday, June 8th, 2019

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OfferPrice can help, but it means a much poorer customer experience
Offer 1

LHR-YMQ
D1001 on 1st June

Offer 3

YMQ-LHR
D1003 on 8th June
Price breakdown

- **Ticket price**: £455
- **Cabin bag**: Included
- **Checked bag**: Included
  - Up to 23 kg per bag. Total dimensions: up to 158 cm
- **Payment method**: £0
  - With Visa Debit

**Total**: £455
“Partial” offers in NDC present challenges for integrators and risks for airlines
Table breakout: What is your experience with full and partial offers? Is there anything I’ve missed?