

Submission to the Competition and Markets Authority Regarding its Provisional Findings in the Matter of the Proposed Acquisition of Farelogix by Sabre

24 February 2020

This submission is made by Travel Technology Research Ltd (T2RL) which is a UK-based research and consulting company that specialises in the application of information technology to the travel industry and specifically to airlines. T2RL makes this submission on its own behalf in the interests of promoting fair competition in the technology industry as it applies to airlines and travel distribution companies. Virtually every company mentioned in the CMA's Provisional Findings Summary is a current or former client of T2RL although none of them has commissioned or requested T2RL to make this submission.

The CMA's report is extensive and covers many of the complexities of airline distribution. Nevertheless we believe that there are some subtleties that may not have been sufficiently appreciated and cause us to question the conclusions reached in the provisional findings. In this document we will set out our high-level concerns and then go on to identify the specific paragraphs of the provision findings that we believe should be reconsidered.

Overall Concerns

The GDS/PSS Axis

Within the overall environment of airline distribution and passenger management the PSS and the GDS have historically been the most important components. While all passenger bookings are processed by a PSS, currently only 40-50% are created by a GDS. This is largely because the GDS comes into play when a customer chooses between multiple options rather than coming directly to a chosen provider. The part of the market that values the ability to make effective comparisons includes most corporate travel, which is among the highest value business for airlines that serve that market. This is unlikely to change in the near future. What may change is where in the stack an airline's offer to the market is created. At present the GDS creates offers but in the future it may be that they will be created much closer to the airline's inventory – effectively in the PSS. Offer creation is a high value component of the whole distribution process and as such it attracts an appropriate price. In future this value may migrate to the PSS.

Currently there are four significant GDS companies in the world. Travelsky's operations are confined almost entirely to mainland China, a market in which its position is protected by regulation and state monopoly. Travelsky has clear ambitions outside of China although the current corona virus outbreak will likely postpone any plans for 2020. Travelport currently offers only distribution services with some data services. While its presence in the supply of overall airline IT services is limited, it is investing in its NDC capabilities more generally and so has clear incentives and plans to develop its airline IT solutions offering. The other two GDS companies, Amadeus and Sabre, both have significant offerings for overall PSS services

but of all these, it is Amadeus that is in pole position to capture share and continuing success in a world in which value moves from the GDS to the PSS.

2018 is the latest year for which we have market share numbers. T2RL tracks 40 different vendors of PSS services but only six of them have a market share of 1% or more, based on passenger volumes processed. Those vendors are:

Vendor	Market Share (Volume)
Amadeus	27.1%
Navitaire by Amadeus	16.6%
Sabre	16.2%
TravelSky	13.5%
SITA	2.1%
Hitit	1.2%
Radixx (now owned by Sabre)	1.1%

Source: www.t2rl.net

In addition around 16% of the market is serviced by systems owned and operated in-house by the airlines themselves.

As the table shows Amadeus is the clear market leader while its wholly-owned subsidiary Navitaire has moved into the number two position. Together they account for around 44% of the global market while Amadeus's share in some regions is much higher. In Europe it has over 63%.

We expect that the provision of advanced merchandising capability will be a significant source of competitive advantage over the next few years. In its own submission to the CMA, Amadeus has claimed that its capabilities in this field are currently in advance of others in the market. We would broadly agree with this assessment. If Sabre is to compete effectively it needs to improve its provision rapidly. Internal development of the necessary capabilities would probably take many years and would have no guarantee of success. It appears that Sabre's management has decided that to compete effectively its only realistic way forward is to acquire a core capability in the form of existing applications on which it can build.

If Sabre is prevented from acquiring this capability it will be further disadvantaged in its competition with Amadeus, which is far and away the market leader and poised to capture this space.

The Evolution of NDC

There is much reference to the New Distribution Capability (NDC) in the provisional findings. While NDC is an interesting subject we believe that its importance has been overplayed and like many others the CMA has been influenced by IATA's optimism about the likely significance of NDC in the next few years. To illustrate this it may be useful to consider the evolution of IATA's view. The following table is taken from an IATA presentation in 2015:

2014	2015	2016	2017
Development	Implementation		Hand-off
NDC Schemas 1.1	NDC Schemas 1.2	NDC Schemas 1.3	Adoption
Airline Alignment	Airline Alignment	Airline Alignment	
Pilots	Adoption	Adoption	
	Implementation support	Implementation support	Implementation support

In it we see that mass adoption of NDC was expected by 2017.

However more recent statements have rowed back substantially from that position and IATA's current position is that mass adoption is not expected before 2025. This would put it beyond the 3-5 years time window considered in the provisional findings.

We believe that some of the more positive statements about the progress of NDC from airline contributors are based on the earlier view and some of the authors have not yet caught up with the more realistic position now espoused in Geneva.

In fact there are other, more substantial, reasons why the progress or otherwise of NDC should be considered a red herring.

To understand why it is important to consider exactly what the term NDC means. In a very strict definition it is no more and no less than a data schema based on XML (Extensible Markup Language) that provides the ability for airlines and their partners to communicate information on products and services at a greater level of detail than is possible using existing messaging standards. In itself this is no more than an evolution of existing capabilities to take advantage of more capable information technology and network connections.

The vision that the proponents of NDC offered went far beyond a data standard. It was for a fundamental change in the structure of airline distribution in which "Sellers" (usually travel agents) would have access to a networked market place into which they could launch shopping queries that would be received by multiple airlines. Each airline in the NDC network would respond with competing offers and the Sellers would be in a position to select the offer(s) that best met their customers' needs. Where a customer journey could be fulfilled by a combination of airlines, the airlines themselves would communicate using XML exchanges to create composite interline offers. Critically there would be no middleman intervening between the Sellers and the airlines. Aggregators might be involved in the network but they would simply be facilitating communications.

None of this has yet been implemented.

The implementations of the NDC data standard that have happened so far have taken the form of Direct Connect links between airlines and individual travel agents. They are only used when an agent already knows that it wants to deal with a specific airline, so comparison shopping at the time of offer creation is either extremely cumbersome or does not take place at all. This has the effect of distorting competition in the airline industry and increasing barriers to entry for start-up airlines and airlines attempting to enter a new market. As far as we are aware no airline is yet using NDC to create interline offers, except in the special case of code-share flights.

This is not to deny that the NDC standard brings some benefits. The ability to create offers including more ancillary products, to make dynamic pricing decisions in real time and to include rich data such as images and video in the offer definitely have value but they are still a long way from the vision proposed by IATA in 2012.

In T2RL's view the original vision of a neutral NDC network may never be realised. Rather there will still be a place for intermediaries to facilitate comparison and competition between airlines. These may be the existing GDSs or conceivably new intermediaries could be established.

[Comments on Specific Paragraphs in the Provisional Findings](#)

12. Flight and personnel scheduling would not usually be considered part of the PSS. Rather these functions and others would be part of an airline's suite of operational IT systems.

16. Travelsky, the Chinese technology provider should also be considered part of this group. Although it currently does little business outside mainland China, that market alone constitutes around 15% of world airline activity. Almost all of that is processed by Travelsky either as a PSS, a GDS, or both.

18. Airlines are also able to create travel agent portals as part of their e-commerce activity. OpenJaw confirms this in its submission to the CMA. Such a portal effectively uses the same technology as airline.com but adds additional capabilities such as credit control and commission tracking. While this is not a very significant factor in the UK, or indeed Europe, it is used quite a lot in other markets such as India. It is especially important to low-cost airlines (LCCs) operating in markets where consumers still choose to use travel agencies to make bookings whether because of low internet penetration or a propensity to use cash for payments. Travel agents are a significant source of funding for tickets in cash-based economies and specific ethnic groups in developed economies by offering payment in instalments taking on, and charging for consumer credit and associated risk.

20. Almost all of the PSS providers that cater to LCCs offer an API as standard functionality. Some of them offer an NDC-compliant API "out of the box".

24. In our experience airlines are highly siloed organisations. It is very common that "strategic" directions may be set by people with less understanding of the practical

implications. In the specific case of NDC, managers who are tasked with implementing the strategy have been finding that the infrastructure required to implement the strategic vision does not yet exist. This gives vendors that charge on a per transaction basis an immediate advantage over others that require the build out of infrastructure. Larger players such as Amadeus can offer commercial terms on a per booking / order basis without the need to contract for hardware and infrastructure and set up test environments etc. This gives them significant advantage over Farelogix for example, especially when the number of NDC bookings is uncertain.

34. We assume that the 25% referred to in this paragraph is entirely made up of GDS revenue. Sabre has no UK customers for its PSS services. Although we do not have current detailed market share figures we believe that Sabre lags both Travelport and Amadeus in UK GDS market share. Even accounting for bookings of UK airlines in other markets where Sabre is stronger we find it hard to credit that it has a 25% share of the combined market for GDS and PSS in the UK. If this is a critical test for this judgement we would expect a much more detailed analysis on this point.

35. We think that this paragraph understates the case. We find the logical chain that concludes that British Airways is a customer of Farelogix to be tortured to the limits of credibility. We query whether any revenue to Farelogix from American Airlines that is attributable to AA/BA interline bookings sold via Direct Connect can be identified let alone measured. T2RL would expect the analysis to look at the operation inside the BA/AA Joint Venture, point of sale and customer for this analysis.

37. We respectfully submit that this conclusion should not be upheld without a reliable analysis of the points in paragraph 34.

38. This depends on the definition of merchandising. All PSSs offer the ability to create a flight offer and price it for sale. This would be considered merchandising by most definitions. Many of the PSSs aimed primarily at the LCC market, such as Navitaire, Radixx, Hitit and IBS provide the ability to go beyond that and include an extensive range of ancillary services in the offer. Farelogix and other vendors have the ability to add ancillary services, most frequently carriage of baggage and seat selection, to users of less capable PSSs. We would contend that this is not a binary question. There is a spectrum of providers of merchandising functionality to suit different airline needs. Farelogix does not bring merchandising capacity to airlines that previously had none but it improves the capabilities of some airlines' existing systems. Farelogix has a very easy to use interface that allows merchandising, but Amadeus also has the ability to merchandise quickly and efficiently for adjustment to offers. Many airlines have also used PROS and its real-time dynamic pricing to merchandise the seat being offered to the passenger. All in all there are too many issues associated with merchandising to consider this as binary. Many airlines have built their own websites and have developed these capabilities themselves for their direct channels. The market for merchandising solution supply is therefore nascent. Those like OpenJaw have decided to focus on traveller data whilst Farelogix has developed a simple and easy to use interface to create and manage bundles. To assume there should be well developed IT vendors in this early stage of market development is at best naïve. Given the importance of merchandising to the revenue lever it is likely the market for merchandising solutions will

continue to develop. Revenue management vendors such as PROS, Accelya and others will see this as an opportunity to deliver offer management solutions with merchandising at the core. T2RL believes that JetBlue Ventures FLYR would be one of the likely challengers in the offer management space given its recent successes.

42. A further consideration is the ability of airlines to manage and support a wide range of direct connections. Support (training, documentation, data supply to back-office systems etc etc) of travel agents is an important function of the GDS that only a few airlines would be equipped to take on today. It would require substantial investment and the creation of new capabilities within the airline. While this might be justifiable for very large agencies like Expedia or American Express it is hard to see how it could be economic for the very large number of smaller agencies that are now connected via the GDSs.

44. There are also significant distribution solutions based on APIs other than NDC that should be considered. These include OTA and the proprietary solutions of various PSS vendors of which the most significant is Navitaire. This has been available for many years and is used by airlines such as GOL in Brazil to distribute a significant proportion of bookings to the trade.

49. As noted above, in some markets the airline.com channel is also used to service indirect bookings by means of travel agency portals.

54 (b) We would question this assertion on the basis that Amadeus provides its Altea PSS to British Airways and its Navitaire PSS to Ryanair. Altea contains merchandising capability as confirmed by the Amadeus submission to this process. Navitaire has extensive merchandising capability including adjustment of prices for ancillaries and it facilitates Ryanair's achievement of 35% revenue from ancillary services. Although Ryanair is domiciled in Ireland we understand that the UK is its biggest market and should be considered by the CMA.

64. Based on our extensive experience in working with technology providers developing solutions for the airline industry we consider that from its current position Sabre would be unable to develop merchandising capability to match Amadeus in 3-5 years. Currently Sabre has a number of products used for merchandising for its PSS customers that T2RL considers very poor compared to the offers from Amadeus. T2RL's Sabre clients find the products difficult to set up and manage. Whilst information from the trial in the US indicated Sabre is investing in its merchandising capabilities, it has to be remembered that Amadeus will continue development, so there is an argument that Sabre can never catch up unless allowed to buy Farelogix. Developments in this industry invariably take far longer than anyone anticipates at the outset. Consider the 12 years that the industry took to switch to electronic ticketing or the seven years that have passed since the announcement of NDC without significant uptake of the standard. Even if Sabre did achieve parity in that time of course Amadeus would not stand still and Sabre would be playing catch-up for a much longer period. The planned acquisition of Farelogix would allow it a much needed "kick-start" to the process. The rest of the field will not rest either and T2RL expects a wider range of vendors to develop and expand in the same time frame.

71. This tipping point is a long time coming and this is probably another false dawn. We suspect that Farelogix management shares some of the misguided optimism that we have observed elsewhere.

78. We submit that any consideration of PSS-agnostic competitors should include PROS. Its dynamic pricing solutions are already a key part of many large airlines' merchandising strategies through its Real-time Dynamic Pricing (RTDP) solutions. Since its acquisition of Vayant two years ago it now has the ability to offer services that compete directly with Farelogix and Amadeus and others in the market. T2RL's view is that Amadeus seeks to monetise integration with PROS through incremental pricing and limitations on service levels. We also note the submission of Google in which it states that it has both merchandising and NDC API capabilities. There can be no serious doubt that Google has the skills and resources to make a success of its offerings in these areas if there is indeed a significant market for such services.

85. The statement that GDSs do not support NDC is outdated. The GDSs are now fully behind the NDC data standard. They support pass through and the PSSs all offer, or seek to develop, an NDC API for airlines to use as they choose. We also find the statement that GDSs will not want to create APIs curious. GDSs consume NDC content via an API from the PSS. It is the PSS where the API is provided. PSS providers, as noted, almost all have some out-of-the box API available alongside other providers. It is airlines, not GDSs, that choose how to deploy the API. Airlines might choose to pass through the GDS or to bypass it, if they could persuade agencies to access their APIs directly. As we comment below, for the most part they have not managed this. So pass through will be the only credible option to reach IATA's NDC ambitions.

87. We are sceptical about the prospects for large growth of GDS bypass solutions. Airlines adopting such solutions are required to invest substantially in technology and support and it is far from clear that there is a business case for doing so. We expect that as the GDSs deploy the ability to consume NDC content and present it to travel agencies the pressures to establish Direct Connect solutions will diminish. We are all old enough to recall the flurry of excitement around the GDS New Entrant companies¹ in the early years of the present century. At the time many industry observers believed that by using newer technologies these businesses would sweep aside the antiquated GDSs by virtue of being able to charge much lower booking fees. This view did not stand up to the real-world pressures of travel agency contracts, back office systems connectivity and support costs and the GNEs eventually turned to other opportunities while the airlines continued to participate with content in the GDSs.

92. For the reasons outlined above we consider that GDS pass-through will reach a far higher proportion of travel agents than GDS bypass and at a lower cost to airlines.

93. Many smaller airlines are using PSS solutions that offer an NDC API out of the box. In the event that an "ideal" NDC network ever did emerge this factor would actually increase

¹ Of which ironically Farelogix was one

competition in the PSS market by increasing the attractiveness of some of those smaller PSS vendors.

94. We agree with the statement that the emergence of Farelogix and others has contributed to the GDS companies offering pass-through options to use NDC and other API based solutions. We disagree that Farelogix is a unique innovation stimulus. It is one among many innovators in this space. Our assessment is that the momentum behind this change is now such that it would continue even if Farelogix were to disappear from the market altogether.

96. We do not agree that Farelogix's loss of independence would result in GDS price increases. Not only are there viable alternatives to Farelogix but also airlines have other levers that they can use to assert their power, such as distribution surcharges or the creation of agency portals.

99. While it is true that Sabre could in principle develop a PSS-agnostic merchandising capability in its own development shops the time taken to achieve this would almost certainly put it out of contention during the 3-5 year timescale considered in these findings. We are pleased to note that Lufthansa agrees with this assessment in its submission to the CMA.

111. This assertion seems to us to contradict the repeated statements in earlier paragraphs that it would be straightforward for Sabre to develop its own merchandising modules to a competitive level. While Sabre does have resources it is a far smaller enterprise than DXC Technologies for example. DXC also has accumulated experience of serving the airline industry. How is it that Sabre could do this but DXC could not?

123. As indicated above it is the view of T2RL that the proposed merger would not harm competition, its claimed adverse effects have been greatly exaggerated and we have serious reservations about whether the 25% share of supply standard is reached. We also contend that the most significant effect of preventing the merger will be to further disadvantage Sabre in its competitive position vis a vis Amadeus.