



Airline Transition to OOSD

Architecture governance of IT retailing systems

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Key objectives

- Assess the moves towards more retailing in airlines (with and without OOSD solutions).
- Point a major missing piece in current transition projects: global solution design and traditional/new retailing progress governance.
- Recommend airlines to secure permanent hi level architecture governance on overall retailing systems (including CRM and digital traveller experience), and manage their legacy decommissioning accordingly

Executive summary

In 2025, the airline industry faces a strong push from legacy PNR/ticket-based systems towards retailing practices based on Offer, Order, Settle, Deliver (OOSD). While consensus exists that personalization, dynamic pricing, and omni-channel order management are essential, no common target architecture has emerged. Vendors' OOSD suites remain incomplete, and airlines risk fragmented transitions.

Large network carriers experiment with OOSD modules but face uncertainty regarding provider roadmaps and how to decommission extensive digital add-ons built around PSS. Smaller carriers are expanding direct-channel digitalization without engaging OOSD, creating technical debt they will later need to resolve.

Architecture streams within transition projects are weak, both in large and small airlines. Supplier selection is often made on financial/risk criteria with **little regard to roadmap or target alignment**, which drives the risk of **overruns and stranded costs**.

Kiveca recommends **reinforcing IT retailing architecture governance**, led jointly by enterprise architects and business stakeholders, to ensure coherent OOSD transitions, reduce technical debt, and align provider roadmaps with airline needs.

1 Retailing in Airlines in 2025

1.1 Low-cost carriers

They have already adopted such practises on their nearly exclusive direct channel, Omnichannel merchandizing remains a marginal issue for them.

1.2 Major network carriers

Network carriers have taken time, like they did for all major innovations in the past , to **commonly establish new standard concepts** (omni- channel Offers by type of customers , dynamic pricing, personalised offer optimisation, Order management and re arrangement in case of travel issues, Deliver at in/out airports and onboard) and **data exchange practises** between their IT systems and their Airline/non airline partners (NDC).

They have delivered NDC practises with travel sellers, have transitioned or are transitioning to offer management and optimisation, and some of them have **renewed their PSS contract with the new order concept**.

They are entering into transition with **2 significant uncertainties**:

1. At what speed will their **OOSD provider cover gaps** that airline had developed or partnered around the PSS to **cover the retailing process all along the travel**?
2. How **to manage the decommissioning of the PSS surroundings** that they had developed or partnered with digital startups?

In the meantime, they continue to experiment the concepts on their direct channel (PSS + online booking engines), by using digital add-on innovative software, used in conjunction with their CRM's, their traditional back-office systems with travel partners, and post departure travel re- arrangements in case of delays or disruptions.

1.3 smaller network carriers

They Have **started to build their retailing on their direct channel** with digital actors, they have **not yet considered OOSD**, but they **augment the technical debt** that they will have to reduce when they will move to OOSD.

2 Absence or poor preliminary global retail solution design creates major risks for transition project plans

As stated above , the advantages to develop retailing practises and move to OOSD systems become quite commonly understood, but, as airlines and OOSD providers haven't reached a common understanding of the target, and as retailing applications are already in place in some areas, the **trajectories remain extremely diverse and uncertain**, with no or very poor **preliminary design** , and **no real confrontation of the trajectories** with the ones of the **IT providers**.

Such parallel progress with a moving target generates **major strategic risks**:

- Fragmented transitions without clear design.
- Stranded costs from parallel PSS + OOSD systems.
- Misaligned vendor roadmaps lead to delivery gaps.
- Failure to reduce technical debt undermines ROI.

The expected **very long transition**, on a **scope which is very broad** because the topic covers not only OOSD transition but also CRM and digital traveller experience, would deserve **very serious solution design pre analysis** by engaging **not only business specialists but also senior architects**, and what we see is that surprisingly the **architecture streams of those projects** are as light or neglected in major airlines as in the smaller ones.

The Architecture stream should cover at least:

- Identify the essential targeted channels and partners where multi providers delivery deserve attention.
- List current and desired omnichannel new offers.
- As-is and to-be system landscape description (PSS with digital surroundings, CRM).
- Regular broad design reviews of pre oosd and oosd retail initiatives

In smaller airlines, the **architecture governance is becoming essential** with generalization of internal and external digital processes, their **legacy is far simpler**, their move to OOSD may be more an **evolution than a disruption** when their **middleware tools will become mature**

The necessity of systematic **early design** and pre/post oosd **design reviews** approach is essential to mitigate the OOSD business case risks:

- Monitor the parallel retailing progress (with or without OOSDC)
- Influence the OOSD provider roadmap accordingly (co design)
- Plan decommissioning of current PSS surroundings

Note: as **airports** have started to be retailers before the airlines, the **airline early solution design** should pay a special attention to their **main airport platforms**, where **information sharing about travellers is currently strictly limited to security and boarding matters**, not at all focused on **additional services delivery** and common **passenger care**. The tradition of non-communication between airline and airport systems will have to stop because **parallel retailing will be inconsistent for passengers**, we will issue soon a dedicated white paper on this topic

3 Recommendation: IT retailing architecture governance

Hi level System architecture governance by senior architects and business product owners has become a **common practise in the Airlines digital/IT community**.

For reasons stated above, a **specific governance should be dedicated to IT retailing ongoings and transition to OOSD**. Such activity, to be driven by **IT enterprise architects together with the main business stakeholders** (Marketing, sales, e-commerce, ground, and onboard services).

The main activities are:

- 1) **Modelize** current and target OOSD application landscape, with focus on offer catalog by channel, links with CRM, links with major partners, delivery at airport, transitioned channel or not, disruption upsells
- 2) **Maintain** in parallel: Retail systems in place by channel, OOSD implementation progress by module and new retailing planned initiatives.
- 3) **Influence** OOSD providers roadmap having in mind both new retail focus and IT technical debt reduction.
- 4) **Reduce** Technical debt (pre OOSD systems).

KIVECA (www.kiveca.eu), with its long experience in PSS changes and its involvement in current new generation retailing projects can contribute, **working with airlines, IT providers, and consulting companies**, to a better structured transition framework.

Contact us for further details