Key elements of successful digital transformation include personalized retailing and flexible distribution across all touchpoints in the customer journey. As airlines look to sell flight and ancillary inventory across direct and indirect channels and have more control over product distribution, a critical shift is required in their commercial strategies. Innovations in areas such as shopping, dynamic pricing and decision support will enable airlines to deliver personalized offers to their customers.
and travel agencies are laser focused on becoming better retailers. They aim to provide contextually relevant and personalized offers for customers, as well as optimize their product distribution across all channels. This evolution in retailing and distribution is driven by changes in the market, evolving customer behaviors and emerging technologies.

Maximizing revenues via ancillary sales continues to increase as a retailing strategy for airlines around the world. The success of unbundling is reflected in the growth of the low-cost carrier (LCC) model. In 2000, LCCs represented 10 percent of the market. Today, LCCs represent 30 percent of all airline seats sold. This business-model shift also changes airlines’ revenue mix, which historically has been dependent on passenger, or seat, revenue per passenger boarded (PB).

According to studies by IATA and IdeaWorks, seat revenue per PB has declined by a 2 percent compound annual growth rate (CAGR) during the last seven years. At the same time, ancillary revenue per PB has increased at a 41 percent CAGR. The strong growth in ancillary sales, however, is still not enough to offset the decline in seat revenue. This means pricing-optimization and offer-management capabilities are more important than ever to close the revenue gap.

Increasingly consumers research, plan and book business and leisure travel with growing degrees of online involvement. For travel agencies, this represents a necessary shift to online channels that complement traditional models. In fact, from 2008 to 2017, air bookings via online travel agencies (OTAs) grew from 17 percent to 24 percent of the total travel-agency sales worldwide. Even with this shift, it is still important for traditional retailers to adopt an omni-channel strategy.

Consumer expectations and shopping behaviors are becoming more sophisticated. Despite shopping volumes increasing exponentially, customers still expect shopping results returned instantly and want offers tailored to their preferences and past purchases.

During the next five years, millennials will make up most of the spending on business travel, the most profitable segment for airlines. Competitive airlines need to be prepared to create dynamic, engaging experiences that millennials expect—offers that include value-add amenities and allow them to shop across multiple devices.

The number of connected devices is expected to increase five times by 2020, from 10 billion to 50 billion devices globally. These devices create new channels and touchpoints that brands can use to interact with their customers and drive loyalty. It also means that technology companies need to design retailing solutions with responsive design at the forefront.

Airlines and agencies expect technology providers to be both partners and innovators in addressing these trends and ensuring they compete effectively in the market.

**Why Now?**

The intersection of these trends is taking shape quickly and requires agencies and airlines to start thinking now about how to take advantage of new retailing and distribution capabilities.

Airlines are more focused than ever on strengthening their brand identity and increasing ancillary revenues. That means it is critical to present targeted content across all channels.

Communication standards enabling airlines to distribute targeted and personalized content with rich media in the indirect channel is a key. It builds upon proven success in the direct channel. Technology modernization is another key enabler, with airlines seeking plug-and-play capabilities and faster time to market.

For agencies, successful aggregation of travel options and workflow efficiency have never been more important. Comparison shopping remains a key part of the agency value proposition, enabling agencies to understand, compare and promote the best offers to their customers.

The market is ready, standards are mature and airlines have clearer retailing strategies. The time to think about the next generation of retailing and distribution, including IATA’s New Distribution Capability (NDC), is now.

**NDC And Beyond**

NDC is an IATA-defined, data transmission standard that allows for enhanced communication between buyers and sellers of air travel and ancillaries. It offers substantial opportunities for stakeholders across the travel ecosystem, such as product differentiation, time to market and shopping transparency.

The technology of tomorrow doesn’t stop at just NDC. Digitally mature airlines should not only embrace NDC messaging standards, but will need to think beyond NDC with initiatives that allow them to intelligently optimize their products, fulfill personalized offers across the customer journey, and own products and services distributed across all channels.

To reach this vision of personalized offers, an evolution must occur: from a world where airline offers are created from static content, such as filed fares and schedules, to a world where intelligent offers are created based on data and merchandising rules in airlines’ systems. A key component of this evolution is the availability and utilization of data insights, as well as leveraging artificial-intelligence capabilities. As systems learn which offers are created and accepted, offers will continually become more relevant to the traveler.

**Airline Revenue Mix**

- **Ancillary Revenue**
  - +41% CAGR

- **PAX Revenue/PB**
  - -2% CAGR

<table>
<thead>
<tr>
<th>Year</th>
<th>Ancillary Revenue</th>
<th>PAX Revenue/PB</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ THE AIRLINE REVENUE MIX IS CHANGING DUE TO THE GLOBAL GROWTH OF LOW-COST CARRIERS. EIGHTEEN YEARS AGO, LCCs HAD A 10 PERCENT HOLD OF THE MARKET. CURRENTLY, THEY REPRESENT 30 PERCENT OF ALL AIRLINE SEATS SOLD.
Not all airlines will fully move to this future state. Many will continue supporting both traditional and dynamic offers. Technology providers must have capabilities to support this hybrid world.

A Phased Approach For Airlines

This evolution to personalized retailing will not be achieved overnight. Best practice is to take a phased approach to solution adoption, ultimately resulting in NDC-enabled offer- and order-management platforms. There are six key phases recommended to enable personalized retailing:

1. Strengthening the core—Start with an investment in core capabilities such as inventory controls, an ancillary platform and an integrated payment platform.
2. Market and customer data—Personalized offers start with having a 360-degree view of customers, beyond just explicit information from their loyalty profile. Marketplace (or shopping) data, for example, is a key data source from the global distribution system that can be leveraged to gain real-time insight into passenger demand and to refine future offers. A data-integration platform brings together market, shopping and operational data from across the enterprise and creates opportunities for designing unique customer experiences.
3. Revenue optimization—Intelligent decision support is a linchpin to enabling airlines to create smart offers. At its core, an airline’s product offering is composed of three components: availability, price and retailing of ancillaries. Pricing optimization is the next step to achieving total revenue optimization and determines the right strategic price points considering passenger demand, willingness to pay and competitive positions.
4. Omni-channel digital ecosystem—As airlines build their retailing ecosystem, they must think about implications for both direct and indirect channels. By leveraging microservices, airlines can drive consistent content and user experiences across all channels. This creates a common middleware layer and a single, standard and flexible point of entry to their business systems.
5. Offer-management system—With these foundational solutions in place, airlines can invest in a centralized offer-management system. This takes inputs from market and customer data and decision-support tools to power the next-generation shopping engine, with persona-based and ultra-fast shopping responses. This is also where the rules engine executes on the offer and offers are validated and stored.
6. Order-management system—With an integrated order-management system, airlines can ensure offers are seamlessly accepted and fulfilled. In the event of irregular operations, it also offers the flexibility for orders to be changed or canceled.

By leveraging a phased approach, airlines can mitigate risk associated with large-scale IT transformation projects. It also allows for earlier value realization. For example, by starting investments in data solutions, airlines can immediately gain a deeper understanding of their markets and customers.

Important Considerations For The Indirect Channel

As airlines start to build their end-to-end retailing ecosystem, IT providers to the indirect channel must design solutions with a compelling offering for agency operations. Integration of content from multiple sources is not new for agency system providers; however, the increasing popularity of NDC-based solutions introduces a scale far exceeding that typically in place today.

Maximizing the revenue opportunity for both sellers and buyers of air travel requires that the offer and order processes protect key themes of the agency value proposition including:
• Comparison shopping is core to the agency business model—Agencies need to identify the comparative value of each offer presented to their traveler. Successful NDC aggregators will be those that can present multiple offers, which vary not only by airline and price, but also content. An easily digestible presentation layer or API, allowing the agency and its travelers to select the best offer without disrupting streamlined workflows is essential.
• Consistency in the end-to-end process is critical to agency productivity and profitability—Agencies, especially travel-management companies, see consistent processes as foundational to how their IT provider helps them succeed. Agency workflows that are consistent across airlines are vitally important, as are the services that agencies provide their customers, including mid- and back-office processes, invoicing and receipts.
• Duty of care cannot be compromised—Over many years, processes and products have been put in place to support duty of care between agency and customer. Ensuring those products are adapted to support

---

**KEY BENEFITS OF NDC**

<table>
<thead>
<tr>
<th>Airlines</th>
<th>Agencies</th>
<th>Corporate Buyers</th>
<th>Travelers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product differentiation</td>
<td>Access to rich air content</td>
<td>Access to more airline content</td>
<td>Transparency</td>
</tr>
<tr>
<td>Time-to-market</td>
<td>Personalized offers</td>
<td>Cost control</td>
<td>Ability to shop on value</td>
</tr>
<tr>
<td>Personalized offers</td>
<td>Transparent shopping and retail experience</td>
<td>Enhanced reporting</td>
<td>Consistent shopping experience</td>
</tr>
<tr>
<td>Consistent content</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

▲ ADOPTION OF NDC INITIATIVES OFFERS TREMENDOUS VALUE ACROSS THE TRAVEL ECOSYSTEM.
content booked via any connectivity or content model cannot be compromised.

**Getting Started**

This evolution is a big task, and it is difficult to know how to begin enabling your business. At the start of any conversation regarding your retailing strategy and how it evolves with NDC, align your organization around two things:

First, define the business objectives you want to achieve. These could span various aspects of your retailing strategy, including:
- End-to-end revenue maximization through pricing optimization, product differentiation and ancillary sales;
- Optimized distribution to all markets and channels globally;
- Omni-channel digital ecosystem and faster speed to market through API connectivity;
- Greater passenger loyalty by personalizing offers and experiences.

**NDC: Key To Enabling Digital Transformation**

Through clear business objectives, a self-awareness of retailing maturity and a phased approach, airlines and agencies can fulfill their retailing vision and remain competitive in the market. NDC-enabled retailing is one of several components of digital transformation that allows airlines and agencies to focus on opportunities in end-to-end revenue maximization and leveraging big data and analytics.

If airlines and agencies don't evolve their retailing strategy, they could lose their competitive advantage in the market. Airlines that risk impacting customer loyalty will not realize their full revenue opportunity. Agencies won't have access to rich, personalized content. NDC offers immense value through standardization, which allows stakeholders to move quickly to meet their business objectives.

Finally, this evolution is not only an exercise in technology adoption, but it requires a shift in people and processes as well. The path to personalized retailing and product distribution will look different for each airline and agency and will require cross-functional teams to work together and align on their retailing strategy.

If they succeed, the result will elevate their business and transform the travel experience for the customer. ASCEND