

Preparing for schema convergence

Addressing common topics to help you prepare for 21.3.



This document

The goal of this document is to support stakeholders in their internal discussions on schema migration by answering some of the common questions asked.

The decision to implement 21.3 or any other IATA standard lies with each organization in accordance with their own strategy.

This document may be further refined based on feedback received and/or any new information that may be deemed pertinent. Any feedback is welcome to Shaunelle harriss@iata.org or your usual IATA point of contact.

Thank you



Schema convergence topics addressed

What value does a new schema convergence bring to the distribution value chain? 21.3 is the new convergence version, what is special about this version? What are the features and enhancements coming with 21.3? Are they only technical or will they help me create a better experience for both leisure and corporate customers, including servicing? Implementing a capability in a new release starts way before the migration to that version. How can OBTs, sellers or airlines prepare to take advantage of the new features? How will all the players be encouraged to migrate so the benefits of industry convergence can be achieved? Deciding to implement 21.3 - the push, pull and inaction considerations Adopting 21.3 - your next steps Where can I find technical resources that could help prepare for my schema migration?



Convergence

Critical mass of implementers implementing a single release for all messages.





The value of Schema convergence

- it helps airlines **reduce the costs** of connecting to different partners in the distribution value chain.
- it **expands the potential for new connections** to Sellers, IT providers and interline partners thanks to a "unified language" through the standards.
- all players can take advantage of a **faster speed** to roll entire new integrations.
- an **opportunity to reset** the various augmentation points and extensions with an alignment to the same interpretation in the implementation guide.



What is special about the 21.3 schema?

- It has technical fixes **that help developers integrate better & code faster** including backwards compatibility,
 better defects management, common types (eff 21.1).
- There are a culmination of features and enhancements that bring more retail value and that address implement feedback.
- The **associated documentation is enhanced** with more granularity, includes use cases with associated XMLs and a clearer alignment with the certification capabilities.



Feature Highlights



Technical improvements





Better documentation

Features and enhancements



Highlights

Technical updates that help developers code better and integrate faster (progressively introduced from 21.1)

- Reintroduction of Common Types, reducing the complexity of code generation (from 21.1)
- New emphasis on implementing future changes in a backward compatible manner
- New process to streamline the handling of defects

Documentation with greater granularity, use cases and examples for aligned interpretation

Features with more retail value [next slide]



Features and Enhancements that bring more retail value

Highlights

Support for automated (machine readable) comparison shopping

Clear representation of the entities (stakeholders) in a transaction

Better support for alternative FOPs

Servicing documented for consistency

Support for reprice and consolidation of new offers

Waitlist support

Order based settlement features



Features and Enhancements that bring more retail value

Highlights (available since 19.2)

Disruption notification with customer acceptance & seller follow-up options

Support for best practices around data synchronization between airline and seller

Improved traceability of an order's lifecycle with new order history messages

Asynchronous payment mechanism aimed at payment cards and PCI-DSS requirements



Examples of features with retail value

- **Shopping with confidence**: Support for offer comparison machine readable taxonomy of airline services; machine readable offer restrictions, COVID Track and Trace;
- <u>Servicing</u>: New Order Quote message so an airline can reprice and consolidate new offers better; Streamlined servicing features, e.g. disruption notification with customer acceptance and seller follow up options, best practices around data synchronization between airline and seller, handling residual value and more...



Examples of features with retail value

2 of 2

- **Payment**: Better support for alternative forms of payment
- <u>Settlement and Accounting</u>: Dynamic agreement of clearance at shopping; giving airline and seller confidence through digitally signed clearance data; support for synchronizing accounting data with the airline's Order Management System; Separate price in distributed order vs accounted order, VAT Handling



Getting my implementation ready for v21.3

- Service taxonomy preparing to map and implement standardized industry codes, including for new types of offers [OBTs/Sellers/Airlines]
- Offer restrictions preparing to map and implement offer conditions per the standard [OBTs/Sellers/Airlines]
- Customer choices preparing to capture and consider the customer's preferences and the (enhanced) identification of entities in the transaction [OBTs/Seller/Airlines]



Getting my implementation ready for v21.3

- Order versioning preparing to track changes in an order using the versioning capability [Sellers/Airlines]
- Order Servicing preparing to calculate and return the residual value to the seller [Airlines]
- Streamlining implementation for new order settlement processes [Sellers/Airlines]
- Setup activities with your payment service provider to implement 3DS, redirection flows and alternative payment forms [Airlines]



Migrating to achieve the industry benefit

- The Shop Order Standards Board decided on the new convergence version in March 2021. The migration to 21.3 is a decision that must be made by each stakeholder. IATA shares key information through various communication channels to help stakeholders plan their migration.
- Airlines and System Providers at the June 2021 SOSB Advisory Forum have shared openly their intentions to migrate to 21.3. Other System Providers have shared their intentions in recorded presentations (see video channel).



Migrating to achieve the industry benefit

- The Distribution Team at IATA continues to refresh the communication in response to feedback.
- Communication is happening through the various channels, including the monthly NDC https://doi.org/10.1001/journal.org/<a> online discussion forums, other industry events etc.
- To be involved in the groups working on the standard development, please email standards@iata.org.



What to consider when migrating versions

Inaction

Push factors

Pull factors

My current version

"It's not broken, so I won't fix it"

Volumes going through the pipe

Integrates well with my strategic partners

Migration costs

Partner contractual terms

e.g. Mandatory migration

Growing complexity, (s/ware maintenance costs)

IATA's certification

Business requirements can't be met (stifle innovation)

Availability of tools to help your migration

Follow the trend (Interoperability)

Major vs incremental

New Features

- Regulatory
- Tested by industry

Schema Quality/Confidence

- Quantity of known defects
- Transparency of defects
- Quality of code generation



A newer

version

Adopting 21.3 – Your Next Steps

- Establish feature parity with your current release (data & functionality)
- Progressively expand to make use of new 21.3 features
- Provide extensive range of 21.3 capabilities following industry best practices



Resources to help your schema migration

- Implementation guide: The platform with information and best practices to aid with implementations of the Enhanced and Simplified Distribution standards, i.e. retailing areas such as NDC, ONE Order etc. This site is managed by the Offer and Order Standard Setting Groups.
- Schema XSD viewer: gives access to graphical representations of the NDC and ONE Order schemas. https://airtechzone.iata.org/labs/tools.



Resources to help your schema migration

- The Implementer Video Channel features a series of airline retail implementations of topics on the minds of implementers who are live and are demonstrating value on their retail journey.
- It includes convergence and migration topics, such as
 - Considerations when upgrading to a new standard version
 - Schema convergence and backwards compatibility explained
 - Schema Migration Experiences shared by implementors



Resources to help your schema migration

- Airline Retailing Implementation Forum is led by the IATA Distribution team and targets stakeholders with live deployments in airline retailing. The goal is to provide delegates with an opportunity to raise questions on retailing implementation topics and encourage conversations among peers on their experiences.
 - Replays of the July, April and December 202 contain specific content on schema migration



Useful Links

- Implementation Guide: https://guides.developer.iata.org/docs
- Report a gap: <u>standards@iata.org</u>
- ARM index: https://retailing.iata.org/armi/
- AIR Tech Zone: https://airtechzone.iata.org/
- Video channel: https://airtechzone.iata.org/
- IATA Airline Retailing Page: https://www.iata.org/retailing/
 - Airline Retailing Hub
- LinkedIn NDC group





Posted 28/05/2021

Schema Migration series - Hitit, Travvise Travel Solutions

Implementers share their experiences doing schema migration, covering 5 - 6 common questions.

- What kind of software engineering and methodology changes have you put into practice to make adoption of multiple versions easier?
- 2. What are the partner integration considerations when preparing to adopting multiple versions?
- 3. Do you have plans to adopt the next convergence version?
- 4. What aspects or characteristics of the schemas (and which versions) have deterred you or encouraged you to move to a newer version?
- 5. What more could IATA do specifically to help ease your migration efforts (e.g. specific tools and/or documentation)?

Ajith G. Poduval, Director, Operations (Travvise Travel Solutions) Elton Ballhysa, Director of Development (Hitit) Vanni Sanvincenti, Lead Architect, Distribution (IATA)

"Migration Series" **Videos**

Video Channel on **AIRTechZone**

Submit video presentations to IATA for publication on the ATZ Video Channel on current and relevant implementation topics



Posted 28/05/2021

Schema Migration series - OpenJaw Technologies

Implementers share their experiences doing schema migration, covering 5 - 6 common questions.

- 1. What kind of software engineering and methodology changes have you put into practice to make adoption of multiple versions easier?
- 2. What are the partner integration considerations when preparing to adopting multiple versions?
- 3. Do you have plans to adopt the next convergence version?
- 4. What aspects or characteristics of the schemas (and which versions) have deterred you or encouraged you to move to a newer version?
- 5. What more could IATA do specifically to help ease your migration efforts (e.g. specific tools and/or documentation)?

Presenters

Pankaj Gabba, VP Product Strategy (OpenJaw Technologies) Paul Kennedy, Senior Software Engineer (OpenJaw Technologies) Vanni Sanvincenti, Lead Architect, Distribution (IATA)



Posted 28/05/2021

Schema Migration series - Migration Considerations

Exploring the decision-making factors of upgrading to a newer version the standards with a closer look at:

- 1. Features & functionality
- 2. Dependencies with integration partners
- 3. Technical considerations
- 4. Stability of standards releases
- 5. Available resources

Vanni Sanvincenti, Lead Architect, Distribution (IATA)

Intentionally left blank



What about Certification and Convergence?

Airlines are working together with value chain partners towards the shared goal of airline retailing.

- The entire value chain has an interest in scaling volumes and to drive value. IATA is equipping the industry with a new IATA Airline Retailing Maturity (ARM) index, (launched October 2021) that helps airlines and their partners to have visibility in airline retailing.
- This ARM index has three pillars: 1) Capabilities verification, 2)
 Partnerships deployment and 3) Value capture compass and you can find a full description of the program at https://retailing.iata.org/armi/.



What about Certification and Convergence?

In 2021 Certification and convergence work together to help move the industry forward:

- Certification will bring greater transparency to the specific capabilities that are deployed (including servicing capabilities). It also helps airlines know where to find more retail value.
- As airlines migrate to 21.3 and implement capabilities per the standard implementation guide, the industry will converge to consistent implementations and their partners will have greater visibility of these capabilities.



Implementation Guidance

- New face of 21.3 documentation
 - Concepts
 - Capabilities
 - Examples
- SOSB focus on greater level of quality and detail in guidance

The **SOSB** "prioritized the documentation of existing functionality over developing new functionality in the Offer and Order messages".

Nov 2021



Intentionally left blank



Convergence schema – a reset opportunity

Better Partner Integration



Developers code faster, integrate better



Industry benefit of majority on common release



New features, enhancements, more retail value



More robust documentation brings aligned interpretation



Thank you

Shaunelle Harris Drake Head Implementation, Distribution Department

harriss@iata.org



