



IATA Implementation Forum

Solving TMC Blockers #2 & #5

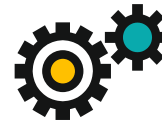
27 May 2020

Verteil Technologies - Introduction

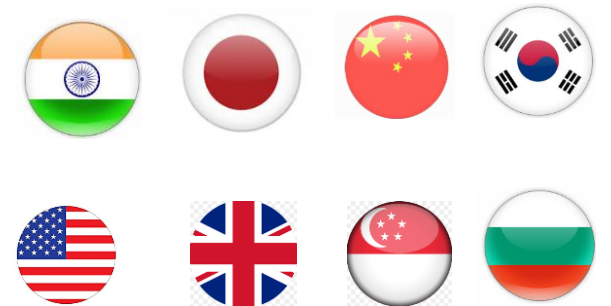


VISION

To be the Travel Technology Partner of Choice for Airlines & Travel Service Providers seeking to embrace new technologies and standards in the Direct Connect Distribution landscape



Offices / Customer Locations



AIRLINE DOMAIN EXPERTISE

Core team has 100+ years of domain expertise in airline PSS. This includes building IATA NDC capability on the airline side in previous roles.



AIRLINE INTEGRATION

Already integrated with 16 airlines, with integration activities initiated for further 10+ airlines. Integration via NDC xmls / proprietary xmls



TECHNOLOGY INNOVATION

Invented a new specification language called OGCL, to facilitate quick and robust integration with airline systems. Verteil Direct Connect deployed on cloud.

Blocker # 5 - Existing queue capabilities and processes depending on passives need to be rebuilt

This is noted by TMCs as a blocker

It is largely around TMCs needing to put alternative solutions in place for airlines that don't support passives.

Processes triggered from queues that work from passives make this a blocker if no alternative in place.

It is noted that a queuing process for events such as schedule change, cancellation are still relevant in NDC

Blocker because

“Downstream processes are not served when an alternative to passives is not in place. These include quality checks, integration with duty of care systems etc. that are built around passives.”

Implementation

“TMCs need to build out alternate solutions to address the functionality that passives support in lieu of airlines and legacy distribution systems not supporting passives.”

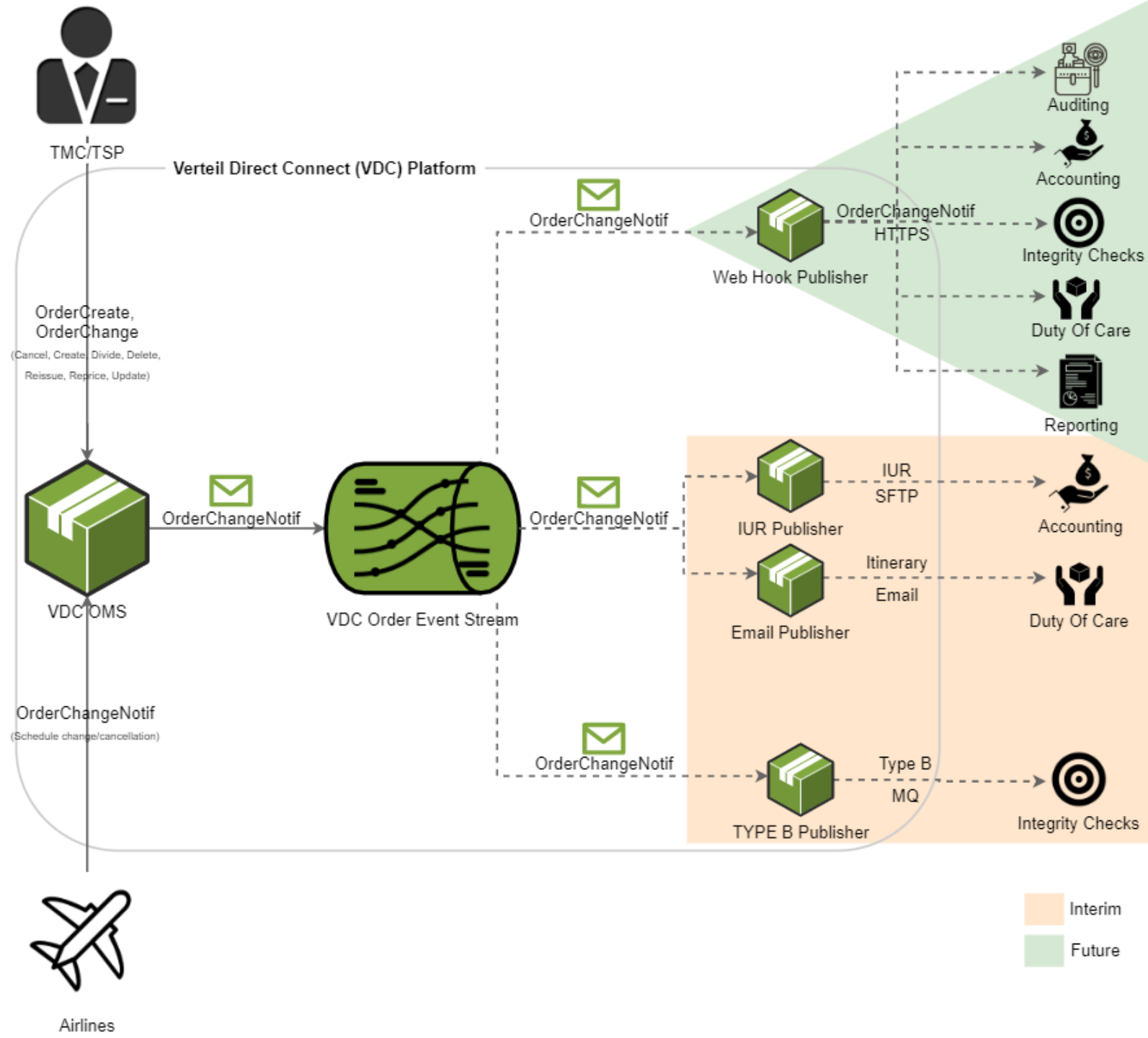
An opportunity to think about new possibilities

No more passives? 5 considerations for a robust alternative

- Solution should be based on a generic communication mechanism between the NDC platform (used by TMC or any TSP) and downline systems
- Solution should be aligned to the NDC standards and should evolve with the progress of NDC
- Consider an event driven approach based on events during the course of an NDC Order's life cycle (Order Events)
- Notify downstream systems on Order Events of interest to them.
- Overall approach should strive to minimize immediate changes to downline systems

Proposed Solution

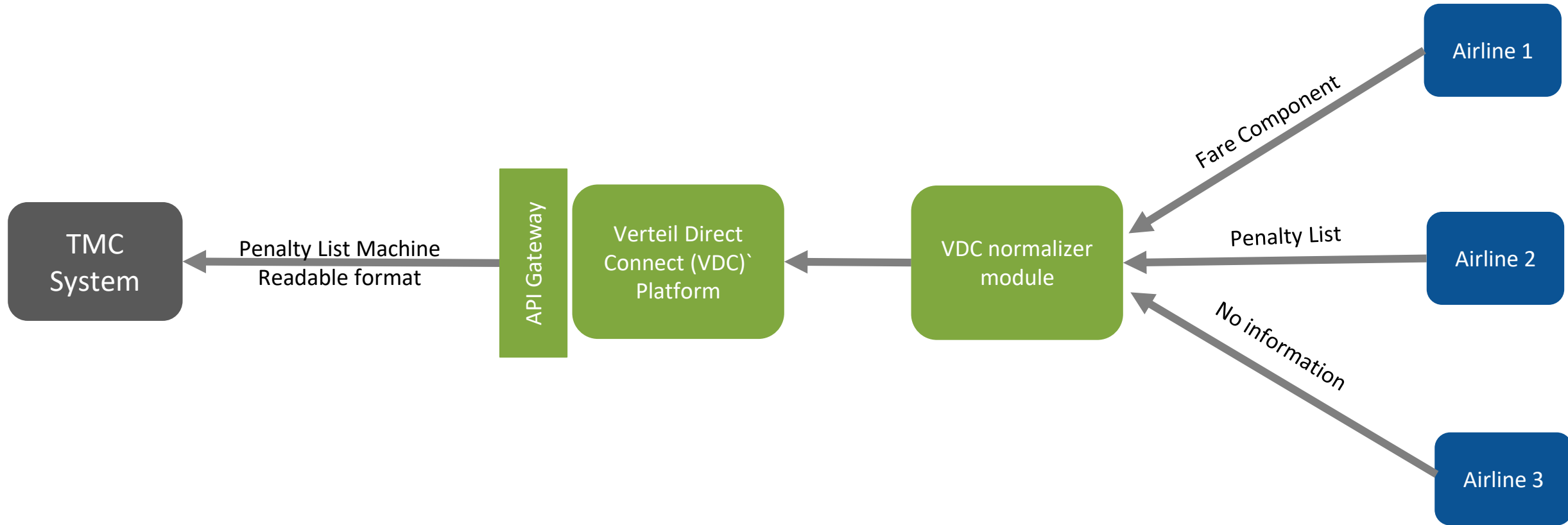
- Publish all Order Events based on OrderChangeNotif schema
 - Voluntary changes (Order Create, Order Change, Order Cancel etc)
 - Involuntary changes due to schedule change or cancellation
- Opportunity for downstream systems to subscribe to Order Events using OrderChangeNotif messages
- OrderChangeNotif to evolve as a message format enabling async communication of any Order changes between systems
- Interim solution to translate Order Events into legacy protocols currently supported by downline systems



Blocker # 2- TMC are receiving offer conditions and offer descriptions in different ways OR not at all

- Standardise offer conditions such as
 - Change / Cancellation penalty rules
 - Baggage Allowances
- Solution planned in the role of Verteil as an aggregator
 - Standardize the information provided by different airlines into a single target zone in the NDC schema
 - For airlines that do not provide such information in the AirShopping API response, create a configuration and include such information based on inputs from airlines
 - This configuration will be constantly monitored based on other API responses from the airline and will be updated in case of any changes

High Level Standardization Approach



Airline 1 Shopping Response – rule conditions in Fare Component

```
<FareRules>
  <Penalty CancelFeeInd="false" ChangeFeeInd="true" RefundableInd="false">
    <Details>
      <Detail refs="CNCIDX1VAJTZEH4BXMW03KLEYB3TJ2KP3ENJWOD11GJGY1U0NAVWEDM0">
        <Type>Cancel</Type>
      </Detail>
      <Detail refs="CHGIDX1VAJTZEH4BXMW03KLEYB3TJ2KP3ENJWOD11GJGY1U0NAVWEDM0">
        <Type>Change</Type>
      </Detail>
      <Detail>
        <Type>Change</Type>
        <Application>2</Application>
        <Amounts>
          <Amount>
            <CurrencyAmountValue Code="GBP">15000</CurrencyAmountValue>
            <AmountApplication>MAX</AmountApplication>
          </Amount>
          <Amount>
            <CurrencyAmountValue Code="GBP">15000</CurrencyAmountValue>
            <AmountApplication>MIN</AmountApplication>
          </Amount>
        </Amounts>
      </Detail>
      <Detail>
        <Type>Change</Type>
        <Application>3</Application>
        <Amounts>
          <Amount>
            <CurrencyAmountValue Code="GBP">15000</CurrencyAmountValue>
```


Airline 2 Shopping Response – rule conditions in Penalty List

```
<ns2:DataLists>
  <ns2:BaggageAllowanceList>
  <ns2:OriginDestList>
  <ns2:PaxJourneyList>
  <ns2:PaxList>
  <ns2:PaxSegmentList>
  <ns2:PenaltyList>
    <ns2:Penalty>
      <ns2:PenaltyID>PEN4</ns2:PenaltyID>
      <ns2:PenaltyAmount>0</ns2:PenaltyAmount>
      <ns2:DescText>Change permitted</ns2:DescText>
      <ns2:AppCode>BDC</ns2:AppCode>
      <ns2:ChangeFeeInd>true</ns2:ChangeFeeInd>
    </ns2:Penalty>
    <ns2:Penalty>
      <ns2:PenaltyID>PEN5</ns2:PenaltyID>
      <ns2:PenaltyAmount>0</ns2:PenaltyAmount>
      <ns2:DescText>Reissue permitted</ns2:DescText>
      <ns2:AppCode>BDT</ns2:AppCode>
      <ns2:ChangeFeeInd>true</ns2:ChangeFeeInd>
    </ns2:Penalty>
    <ns2:Penalty>
      <ns2:PenaltyID>PEN6</ns2:PenaltyID>
      <ns2:PenaltyAmount>14260</ns2:PenaltyAmount>
      <ns2:DescText>Cancel permitted</ns2:DescText>
      <ns2:AppCode>BDT</ns2:AppCode>
      <ns2:CancelFeeInd>true</ns2:CancelFeeInd>
    </ns2:Penalty>
    <ns2:Penalty>
```

VDC universal shopping response – rule conditions in a standard format under Penalty List

```
    "Details": {
      "Detail": [
        {
          "PenaltyType": "Change"
          "refs": [
            "CHGIDX1VAJTZEH4BXMW03KLEYB3TJ2KP3ENJWOD11GJGY1U0NAVWEDM0-1"
          ]
          {
            "Application": {
              "Code": "PDE"
            },
            "Amounts": {
              "Amount": [
                "ApplicableFeeRemarks": {
                  "Remark": [
                    "Allowed"
                  ]
                }
                {
                  "CurrencyAmountValue": {
                    "value": 15000,
                    "Code": "GBP"
                  },
                  "AmountApplication": "MAX"
                },
                {
                  "CurrencyAmountValue": {
                    "value": 15000,
                    "Code": "GBP"
                  },
                  "AmountApplication": "MIN"
                }
              ]
            }
          }
        }
      ]
    }
```

Advantages for TMCs

- TMC systems can always expect offer rule conditions to be made available in the same location irrespective of the difference in airline NDC implementation
- Machine readable formats will ensure minimal maintainability expenses to TMC systems
- New Airline formats will also be normalized to the standard format – meaning that TMC systems have to adapt only once

Thank You