



Unlocking ONE Record – From Theory to Real Production Benefits

Cargo Experts Conference
Brussels – 24.09.2025

We teamed up.



- Largest airline IT platform with over 40+ airlines & GHAs using iCargo system



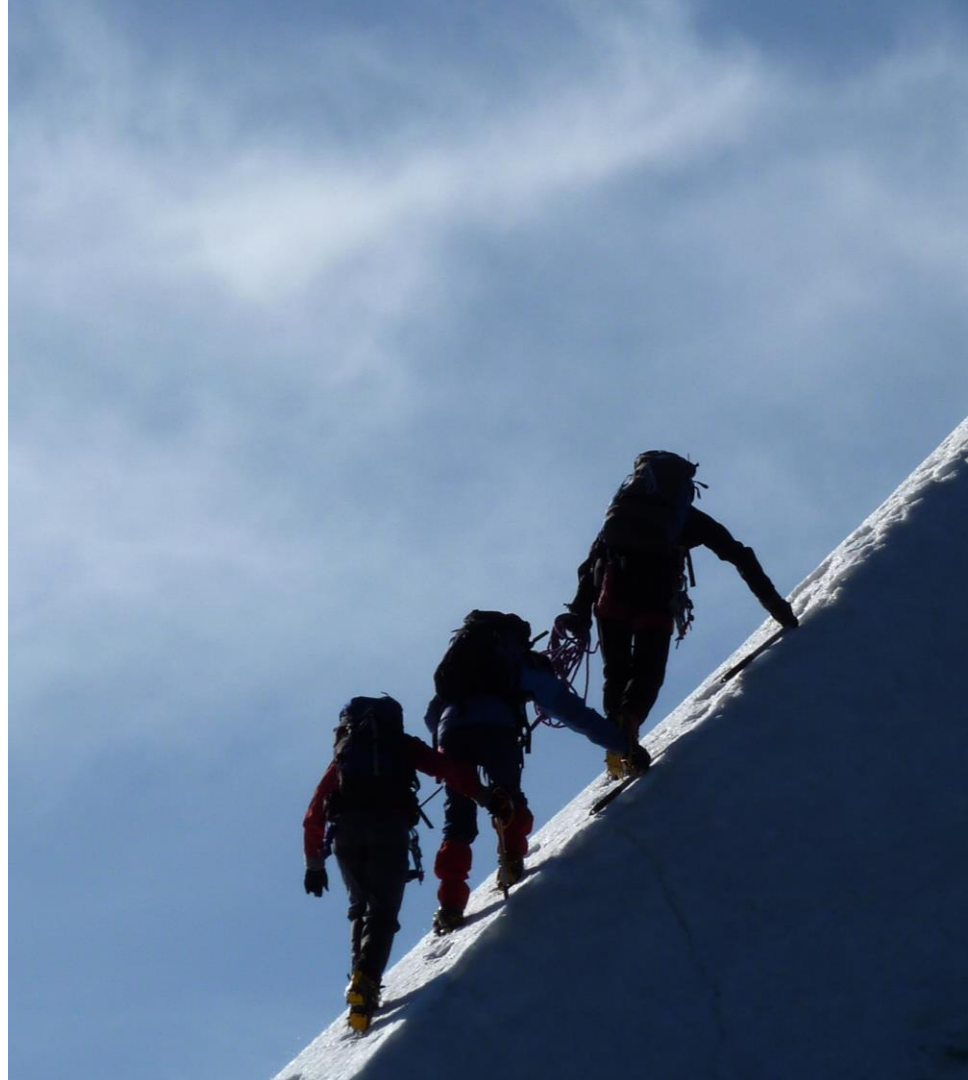
- Largest forwarder IT platform used by 17.000 logistic companies in 190 countries



Lufthansa Cargo

Networking the world.

- Global cargo airline with 300 Stations in over 100 countries and 1.5 Mio AWBs per year



To successfully move a shipment, many players are involved – each generating, sharing and modifying information.



Shipper

Airlines

GHAs

Trucking Companies

Customs

RFS Providers

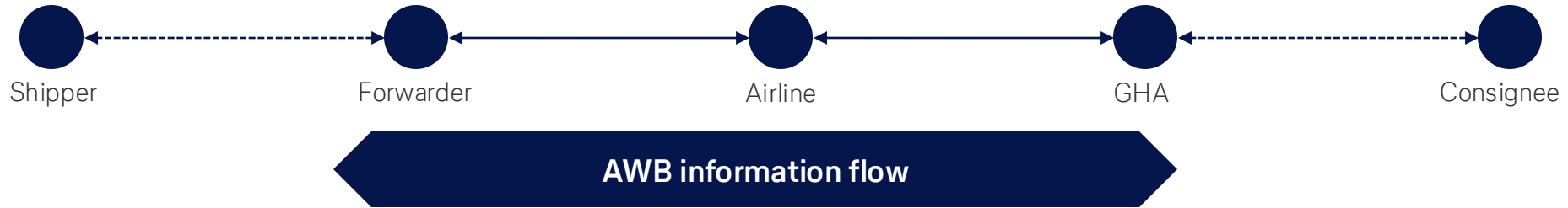
Consignee

... and many more!



Shipment Record: The perfect entry point into the world of ONE Record

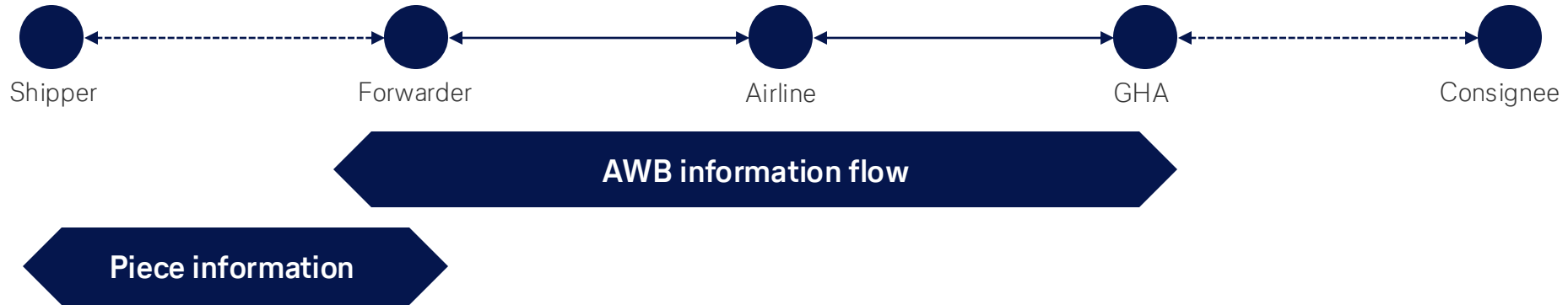
– Scalable with additional elements.





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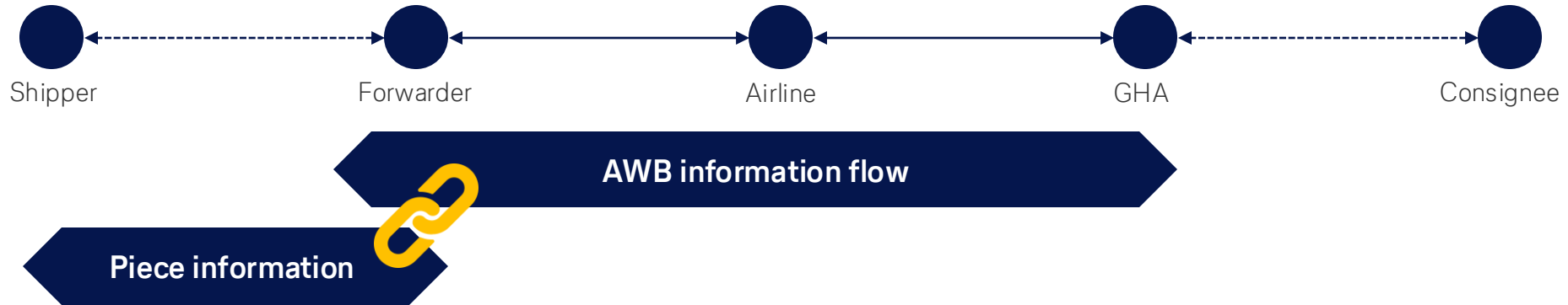
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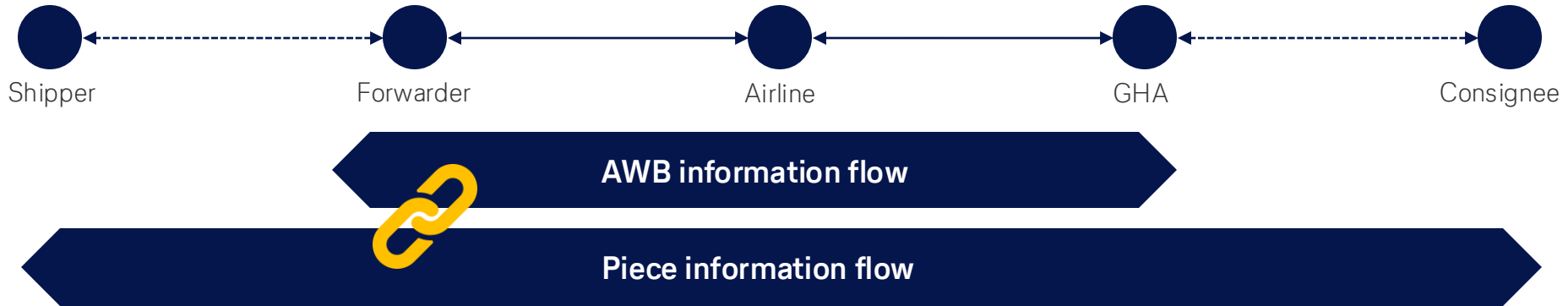
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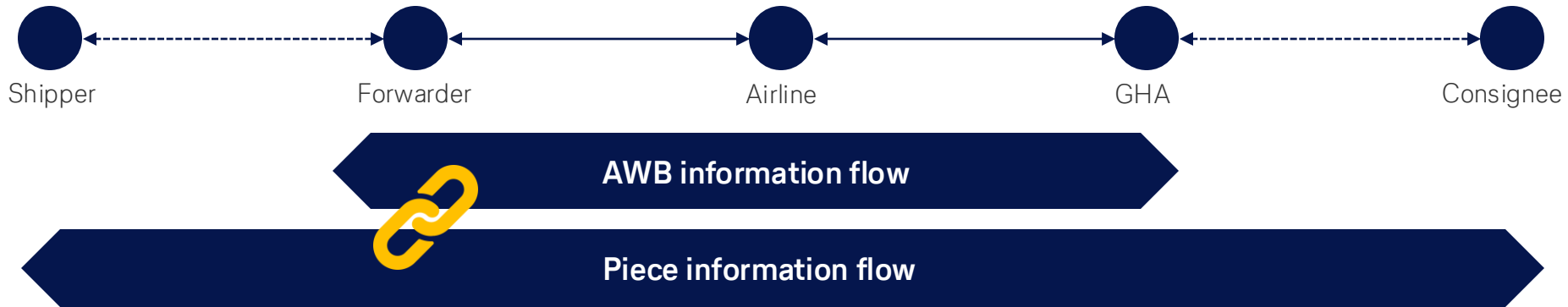
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Shipment Record: The perfect entry point into the world of ONE Record

– Scalable with additional elements.



Easier AWB data handling
**reduces operational
resources.**



Seamless **sharing of
piece-level information**
(e.g. tracking, customs).



Implementation possible
**without modifications to
warehouse** processes.



Taking Shipment Record to Production: Early Data Model versions came with both pros and cons

Data Model 3.0 (Jan 2024 release)

Waybill	
billingDetails	BillingDetails
masterWaybill	Waybill
referredBookingOption	
shipment	
checks +=	
externalReferences +=	
arrivalLocation	
carrierChargeCode	cc
carrierDeclarationPlace	
customsOriginCode	
declaredValueForCarriage	
declaredValueForCustoms	
departureLocation	
houseWaybills +=	
otherChargesIndicator	codes:Prp
serviceCode	cc
waybillType	
weightValuationIndicator	codes:Prp
events +=	
skeletonIndicator	
destinationCharges +=	
involvedParties +=	
otherCharges +=	
waybillLineItems +=	
accountingInformation	
carrierDeclarationDate	dateTime
carrierDeclarationSignature	string
consignorDeclarationSignature	string
destinationCurrencyRate	double
modularCheckNumber	boolean
shippingInfo	string
shippingRefNo	string
waybillNumber	string
waybillPrefix	string

WaybillLineItem	
chargeableWeightForRate	Value
dimensionsForRate	Dimensions
grossWeightForRate	Value
hsCodeForRate	CodeListElement
productionCountryForRate	CodeListElement
rateCharge	CurrencyValue
rateClassCode	ccodes:RateClassCode:IB
rateClassCodeBasic	ccodes:BasicRateClassCode:IB
ratePercentage	Value
rxp	CodeListElement
uldOwnerCode	CodeListElement
uldRateClassType	CodeListElement
uldTareWeightForRate	Value
uldType	CodeListElement
volumetricWeightForRate	VolumetricWeight
commodityItemNumberForRate	string
goodsDescriptionForRate	string
lineItemNumber	integer
pieceCountForRate	integer
slacForRate	integer
uldSerialNumber	string

- ✓ Allowed most shipment data to be passed at waybill level
- Supported only single dimension group, ULD type shipments
- Piece centricity could be bypassed



Taking Shipment Record to Production: Early Data Model versions came with both pros and cons

Data Model 3.0 (Jan 2024 release)

Waybill	
billingDetails	BillingDetails
masterWaybill	Waybill
referredBookingOption	Booking
shipment	Shipment
checks ⇐	Check
externalReferences ⇐	ExternalReference
arrivalLocation	Location
carrierChargeCode	ChargeCode
carrierDeclarationPlace	DeclarationPlace
customsOriginCode	CustomsOriginCode
declaredValueForCarriage	Value
declaredValueForCustoms	Value
departureLocation	Location
houseWaybills ⇐	Waybill
otherChargesIndicator	Indicator
serviceCode	ServiceCode
waybillType	WaybillType
weightValuationIndicator	Indicator
events ⇐	Event
skeletonIndicator	Indicator
destinationCharges ⇐	Charge
involvedParties ⇐	Party
otherCharges ⇐	Charge
waybillLineItems ⇐	WaybillLineItem
accountingInformation	AccountingInformation
carrierDeclarationDate	DateTime
carrierDeclarationSignature	String
consignorDeclarationSignature	String
destinationCurrencyRate	Double
modularCheckNumber	Integer
shippingInfo	String
shippingRefNo	String
waybillNumber	String
waybillPrefix	String

- ✓ Allowed most shipment data to be passed at waybill level
- Supported only single dimension group, ULD type shipments
- Piece centricity could be bypassed

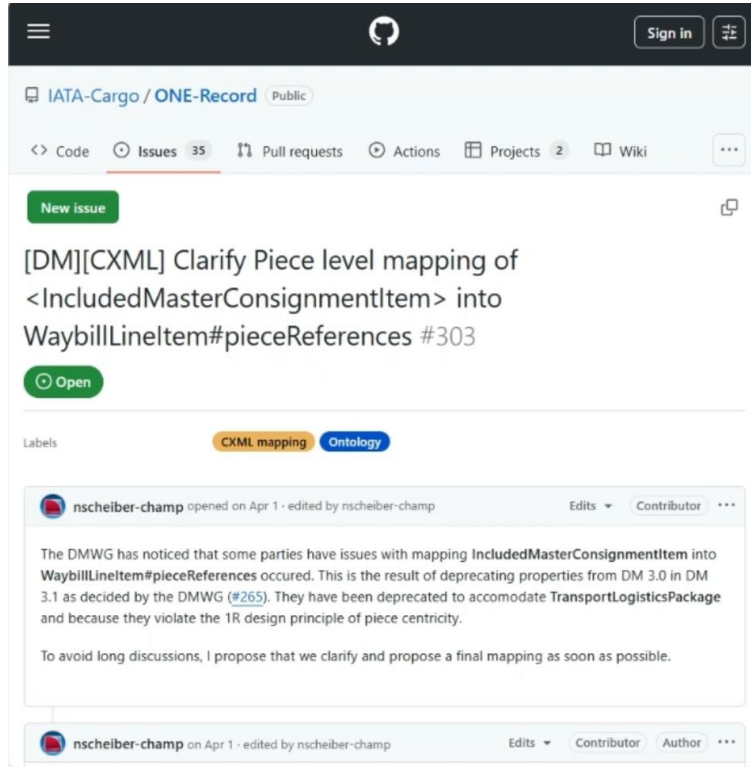
Data Model 3.1 (Jan 2025 release)

Waybill	
billingDetails	BillingDetails
masterWaybill	Waybill
referredBookingOption	Booking
shipment	Shipment
checks ⇐	Check
externalReferences ⇐	ExternalReference
arrivalLocation	Location
carrierChargeCode	ChargeCode
carrierDec	CarrierDeclaration
customsO	CustomsOriginCode
declaredV	Value
declaredV	Value
departure	Location
houseWay	Waybill
otherChar	OtherCharge
rcp	RateClassCode
serviceCo	ServiceCode
taxAmour	Value
waybillType	WaybillType
weightVal	Value
events ⇐	Event
skeletonIndicator	Indicator
accountingNotes ⇐	AccountingNote
destinationCharges ⇐	Charge
involvedParties ⇐	Party
otherCharges ⇐	Charge
waybillLineItems ⇐	WaybillLineItem
accountingInformation	AccountingInformation
carrierDeclarationDate	DateTime
carrierDeclarationSignature	String
consignorDeclarationSignature	String
destinationCurrencyRate	Double
modularCheckNumber	Integer
shippingInfo	String
shippingRefNo	String
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- ✓ Piece-centric; critical shipment data moved to piece LO
- ✓ Supported multi-dimension group, ULD type shipments
- But bulk of air cargo business processes are still at shipment level globally today



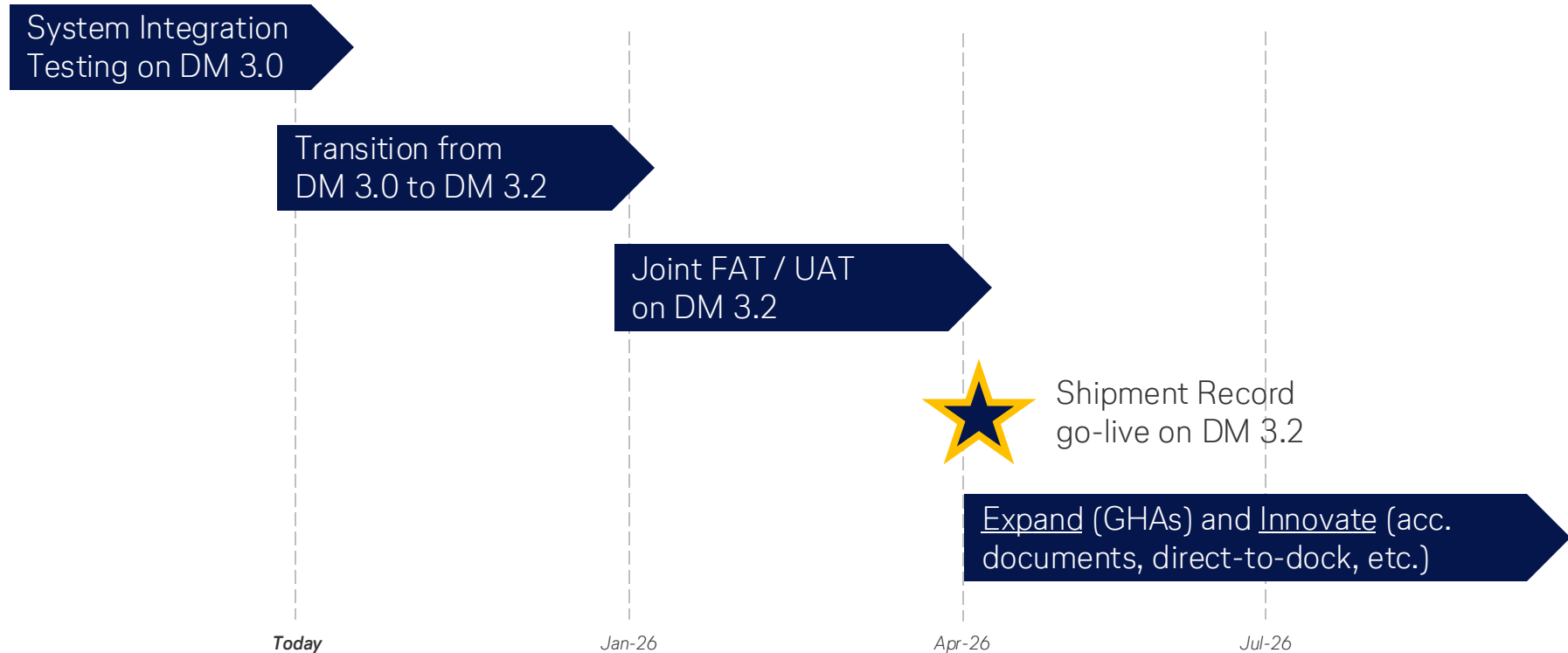
The Breakthrough : Data Model 3.2 – Co-creation and collaboration between IATA, Lufthansa Cargo and IBS Software



- **80+** Days, **20+** GitHub interactions, **15+** participants, many more virtual & in-person + internal & external workshops...
- Key outcomes achieved in DM 3.2 (Aug 2025 release) -
 1. Piece-centricity retained – by having right balance of properties in waybill and piece LOs
 2. Existing shipment level business processes can be supported but with certain assumptions;
 3. Bi-directional, multi-party flow of data between forwarder, airline and GHA could be managed
 4. Most hybrid (legacy + ONE Record) scenarios handled



Implementation Roadmap: Use Shipment Record on DM 3.2 as foundation to bring innovations that were previously difficult to scale





Potential ONE Record Roadmap: Multi-party innovative use cases that leverage built on Shipment Record



E2E Visibility

Triggering tracking events from GHAs, airlines on shipment record objects



Accompanying Documents

Attaching rich cargo e-pouch documents to enable direct-to-dock



Upfront Billing Reconciliation

Conveying the applied cargo rates and freightage at “rate audit” stage



Special Cargo Handling

IOT data feeds to automate value added services in special cargo



Workflows / Tasks

Distributing handling tasks / SOPs for special product shipments



Digital Check Sheets

Capturing digital check sheets across station network



Outlook & Call to Action: To work towards building a self-sustaining ONE Record ecosystem for the air cargo industry



The Way Forward -

1. Achieve scalable shipment record exchange across three of the largest ecosystems in air cargo
2. Become reference implementation for shipment record + new use cases
3. Create momentum for best practice setting and standard evolution globally



Thank You!