DHL and Unilever collaborate on efficient and sustainable Logistics

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Introduction

• Case is based on use of GS1 standards.
• GS1 standardisation organisation, its history, its scope, its goals and some on-going programmes will be presented by Yuliya Shevchenko (15:00 - Interoperability stream).
• Case covers a long period of collaboration between DHL & Unilever.
• Focus on warehousing due to
  – Relative Maturity of GS1 messaging standards at programme start.
  – Need for in-depth collaboration was felt most in the warehousing services area.
• Distinction between Transportation and Warehousing Logistics is fading due to much increased need for Integrated Logistics covering both aspects.
• Case will identify what went well and where we faced challenges.
The Challenge

- Dozens of warehouses all across Europe
- Cover Food and Non-Food operations
- Little -if any- standardisation of processes across sites:
  - Most sites designed and implemented separately from all others
- Little or no re-use of “best practice” among sites
- Several different LSP for operating the sites
- High and increasing pressure from the market to improve the Supply Chain
The Solution

• Start of WCI (Warehouse Communication Integration) project in 2005 to standardise and improve the warehousing operational and communications & integration processes.

• Use of Open Standards (GS1) where ever possible.

• Start with a single LSP (DHL Supply Chain) (in Belgium, Spain, UK, Slovakia, Hungary, Ireland and Portugal)
The Building Blocks

The Solution in more detail:

- Standardisation of the process interfaces.
- Use of GS1 XML messages
- Use of GS1 data keys (GLN, GTIN, SSCC)
  Global Location Number; Global Trade Item Number; Serial Shipping Container Code
- Use of single connection (Internet/AS2) between Unilever and DHL
Business Processes

Goods receipt

Unilever

- Product En-route Inbound
  - Pre-Alert
  - Expected Deliveries
- Update Inventory
- Return Order
- Update Inventory
- Credit Customer

Transaction

- Pre-Alert
- DespatchAdvice
- Expected Deliveries
- DespatchAdvice
- Goods Received
- ReceiptAdvice
- Return Delivery
- DespatchAdvice
- Return Receipts
- ReceiptAdvice
- Create Return Order
- MultiShipmentOrder

LSP

- Purchase Order in WMS
- Physical Receipt of Goods
- Customer Returns
- Planned
- Unplanned Returns / Refused Shipments
Goods Outbound

Unilever

Transaction

LSP

Delivery / Order
- Customer
- LSP
- Short Shelf Life
- Ad Hoc Customer
- Blocked Stock
- Export

Invoice

Product En-Route
- Outbound

Re-packing
- Internally
- Externally

Delivery / Order
- WarehouseShippingOrder

Confirmation
- DespatchAdvice

Delivery Date
- DespatchAdvice

Delivery / Order for re-packing
- MultiShipmentOrder

Master Data

Picking
- Ad Hoc

Dispatch Confirmation
- Planned / Actual Delivery Date

Move Components
- Internally
- Ship Components

Business Processes
Unilever

Transaction

LSP

Update Inventory Quantities

Update Inventory Status

Updates changing Quantities

Physical moves

Sampling

Destruction / Scrap

Update Inventory

Unisions

Updates NOT changing Quantities

Quarantine Status

“Pallet de-topping”

Re-palletise
Following 7 GS1 XML messages have been used to support 16 transactions identified above:

- Item Data Notification
- Party
- MultiShipmentOrder
- WarehouseShippingOrder
- ReceivingAdvice
- DespatchAdvice
- InventoryActivityOrInventoryStatus
• Business Decision to move the initiative forward from concept into deployment took a long time (about a year and a half).
• Deployment of first 9 sites took appr. 18 months.
• Business processes were aligned & streamlined in parallel to messaging deployment.
• All countries (except PT) in scope now live on new standardised approach.
• Use of GS1 XML was possible for all warehousing transactions with only a few amendments for some transactions. Preference was to have none.
• Some XML messages proved useful for multiple transactions.
• DHL and Unilever exchange well over a million business transactions per annum using the WCI approach.
• Unilever are rolling this out across Europe also to LSP’s other than DHL.
• DHL is currently engaged in a number of similar initiatives with other MNC but so far these have not moved into full-fledged deployments mainly due to creating the (financial) business case and requirement to standardise business processes.
CONCLUSIONS

• Creating a (financial) business case for this kind of standardisation is difficult. Even retro-actively benefits could not exactly be quantified.

• GS1 XML for warehousing transactions currently offers adequate coverage for common transactions but

• Needs enhancements to keep up-to-date with modern business process requirements. (See also Yuliya’s presentation)

• This approach works for DHL and Unilever. Therefore other companies should be able to re-use this approach preferably based on an “industry standard” developed and supported by multiple manufacturers and logistic service providers.

• Unilever are rolling this out across Europe also to LSP’s other than DHL.

• DHL suggest similar standardisation approach to Multi National Clients (MNC) but that is proving to be “hard work”. However some of MNC actively approach DHL to investigate potential of the approach in their situation but even then the going usually gets tough.
DHL and Unilever several other companies have jointly delivered the GS1 (Global) “Logistics Interoperability Model” (LIM); this model is the “to-be” industry standard for Transport and Warehousing processes associated information exchanges.

The DHL en Unilever WCI experience will be an important input into the GS1 LIM Warehousing part.

Philips amongst others has joined in this exercise.

Delivery of Updated Messaging Standards for the LIM has been started with initial focus on transport followed by warehousing.
GS1 Brochure including Case Study

NO makes use of a wide range of GS1 standards, including GS1 Identification Keys such as GS1 DUN and GS1 DUN Barcode standards such as GS1-128 for labelling and wide range of GS1 eCom XML messages.

NO covers all the processes that take place with-in the four walls of a warehouse with a set of 16 targeted interfaces based on GS1 eCom XML standards. This messaging includes processes in master data management for item and locations, inbound goods such as order notification, rejection notification, receipt confirmation, inbound goods such as receipt notification, order confirmation, inventory control and management such as stock reconciliation, sampling, mapping, location status, re-palletisation, pallet de-sipping and physical movements.

Deployment of the W3 standard has significantly streamlined communication between Unilever and DHL, speeding up the switch of new business activities and sites. The creation of a single point of connectivity has also improved the reliability of connectivity to levels well above what was achievable before W3. Best practices identified in individual warehouses are now more easily transferred to other sites.

The standardisation delivered by the W3 standard has also allowed Unilever to roll out its SAP consolidation programme more quickly. Because it is based on the concept of “develop once, deploy everywhere”, another major benefit has been the reduction of support and maintenance costs. The level of efficiency gains realised by the project partners through the initial W3 rollout has led to the decision to deploy the standard to the remaining sites, and to all new sites.

During the project, the partners found that the then available version of the GS1 XML messages did not always cover all the requirements of the warehouse processes they were operating. An immediate extension to the standard GS1 eCom XML messages needed to be created. Unilever and DHL are both actively engaged in GS1 Transport and Logistics User Group and in particular

For more information about Unilever visit www.unilever.com
For more information about DHL Supply Chain visit www.dhl.com