DHL and Unilever collaborate on efficient and sustainable Logistics



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samen werkt 1

The Challenge

- Dozens of warehouses all across Europe
- Few 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 (in Belgium, Spain, UK, Slovakia, Hungary, Ireland and Portugal)



The Building Blocks

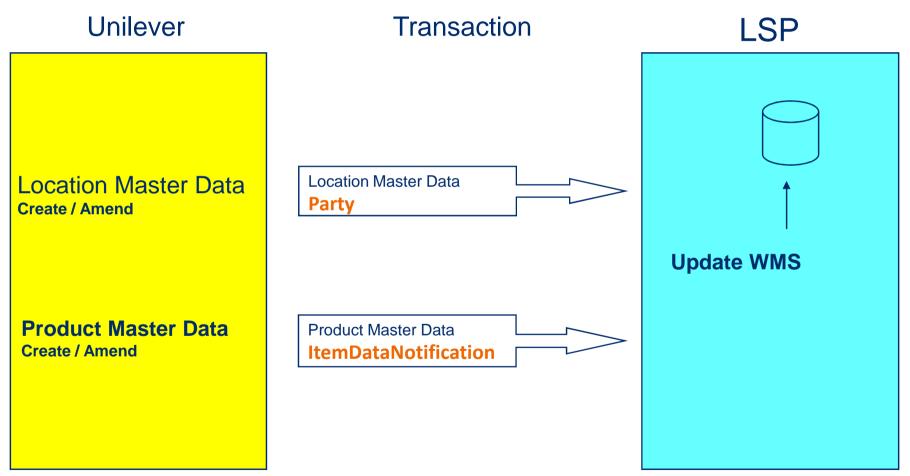
The Solution in more detail:

- Standardisation of the process interfaces.
- Use of GS1 XML messages
- Use of GS1 data keys (GLN, GTIN, SSCC)
- Use of single connection (Internet/AS2) between Unilever and DHL



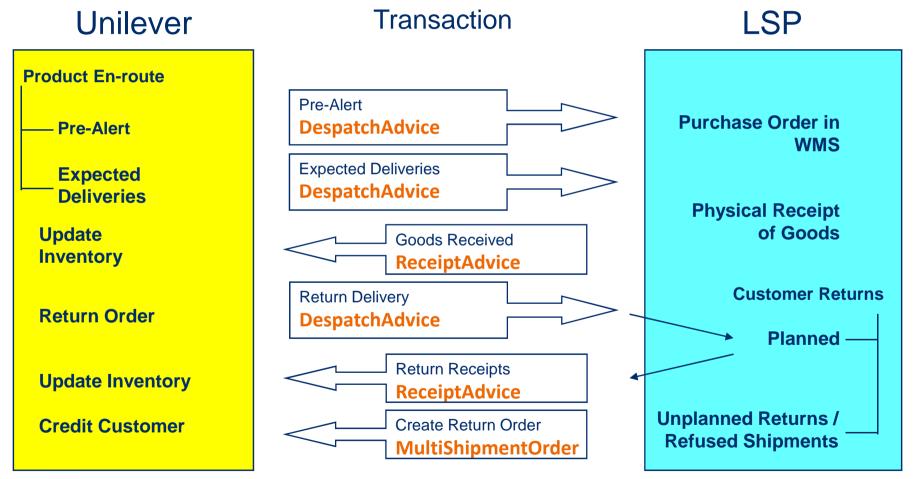


Master Data



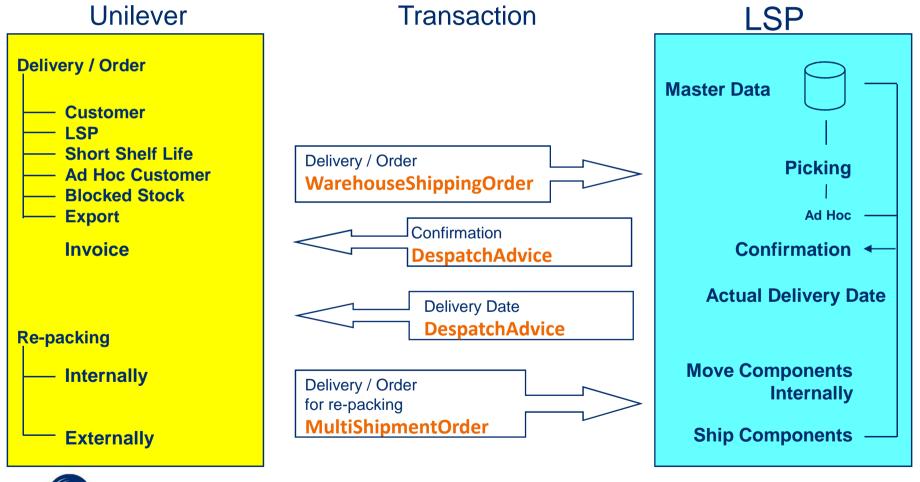


Goods receipt

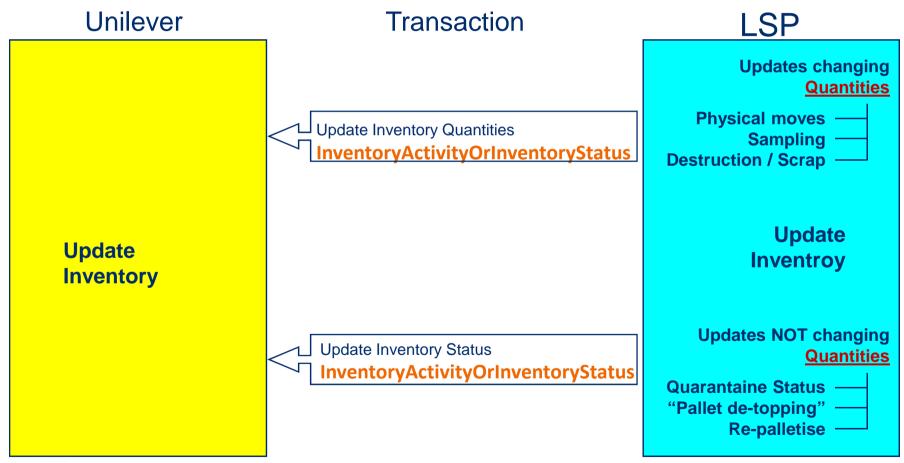




Goods Outbound

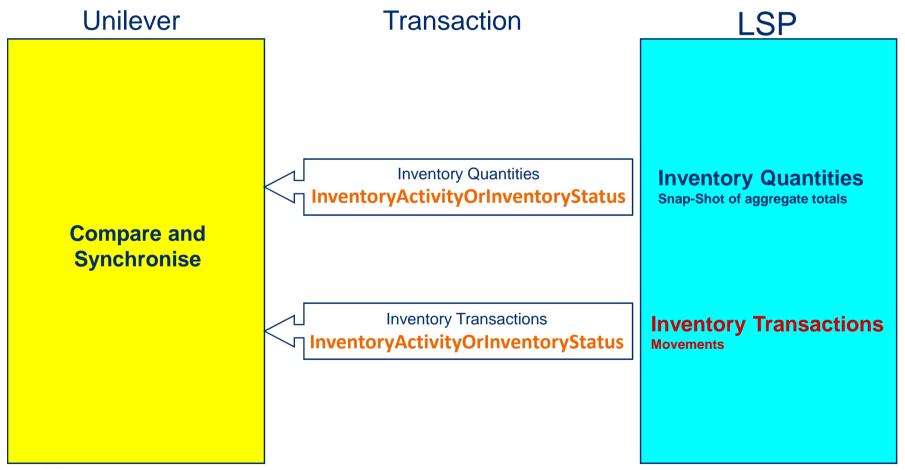


Inventory Control





Inventory Synchronisation





XML message standards

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

- Item Data Notification
- Party
- MultiShipmentOrder
- WarehouseShippingOrder
- ReceivingAdvice
- DespatchAdvice.
- InventoryActivityOrInventoryStatus



CONCLUSIONS

- Use of GS1 XML was possible for all warehousing transactions with only a few amendments for some transactions.
- Some XML messages proved useful for multiple transactions.
- 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)

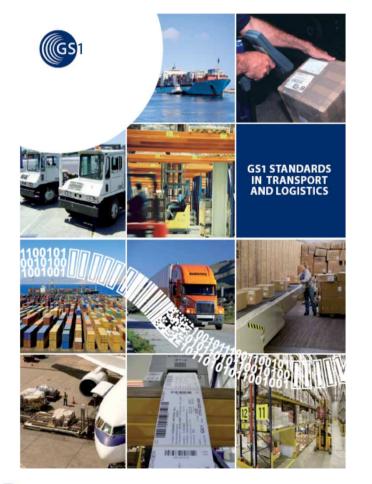


Subsequent Activities

- 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.
- GS1 have adopted the DHL en Unilever practice as starting point for the 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





WCI makes use of a wide range of GS1 standards, including GS1 identification Keys such as GTN, GLN, and SSCC; GS1 BarGode standards such as GS1-128 for labeling; and a wide range of GS1 eCom XML messages. WCI covers all the processes

that take place within the four wells of a warehouse, with a set of 10 standard interfaces based on GS1 - Corn ML standards. The messaging includes processes in master data management for items and locations; inbound goods such as upfront notification ofreceipt, receipts confirmation; outbound goods such as instruction to dispatch, delivery, re-pack and dispatch confirmation; inventory control and management such as stock reconciliation, palling acrapping, lquaranthel status, re-palletisation, pallet de-topping and physical movements.

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

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

During the project, the partners found that the thenavailable versions of the GS1 XML messages did not always cover all the requirements of the warehouse processes they were operating. In some case, extensions to the standard GS1 eCom XML messages had to be created. Unlever and DHL are both actively engaged in GS1 Transport and Logisties. User Gisup and In particular,



in the eCom related developments for this sector. The Logistics Interoperability

Model (LIM) documented what processes happen in the warehouse management and transportation, so that further developments of the GS1 eCom standards are based on the LIM. This development is ongoing now, as part of the Logatics eCom work group, and both Unferent and DHL are working to ensure that the learnings from the WCI project are incorporated into future releases of GS1 XML standards.

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