



Understanding Global Data Synchronisation (GDS)

An introduction to GDS for suppliers and retailers



Introduction



Imagine, as a supplier or retailer, that you could continuously align your product information with your trading partners.

Imagine that this information could be communicated through simple, fast and accurate transactions all along the supply chain, allowing the right amount of goods to become available at the right place and at the right time.

These efficiencies are not imaginary. They are being achieved today by suppliers and retailers throughout the world who are using Global Data Synchronisation (GDS). These companies are seeing tangible benefits on both sides of the supply chain, such as reduced out-of-stocks and reductions in the time it takes to reconcile purchase orders and invoice mismatches.

Your company can benefit too – providing you act now by taking advantage of the unique opportunity that adopting GDS offers.



“Bar codes have transformed the way we do business; Global Data Synchronisation is now set to do the same.”

Richard Brasher,
Commercial & Trading Director,
Tesco plc

About GS1 UK

GS1 UK adds value to members' business by delivering and supporting the adoption of cross sector, global supply chain standards. Using GS1 standards for bar coding, electronic business messaging, data synchronisation and, through the EPCglobal Network, Radio Frequency Identification, members can enhance product visibility, reduce costs, increase stock availability and improve customer safety.

Why synchronise data?



The efficiency of today's supply chain is increasingly dependent on accurate product information, for example, product description, dimensions, weight etc.

This information is shared by suppliers and retailers on a daily basis through their usual business trading practices. However, as these transactions are becoming more automated, so the need for accurate product information is becoming more business critical. Inaccurate product information can result in increased costs, returned shipments, lost sales and ultimately, consumer dissatisfaction. This affects all suppliers and retailers, no matter what size they are or how many trading partners they have.

"Alignment of data between retailers and suppliers will improve on-shelf availability and ultimately reduce costs and increase sales. This lies at the heart of the principles of Efficient Consumer Response. This is the next step for FMCG in the UK."

Chris Tyas,
Co-Chair, ECR UK Board



What is data synchronisation?

Data synchronisation is simply a process that enables the seamless flow of product information through the supply chain. It ensures that suppliers and retailers use the same product information at all times.

A form of data synchronisation is taking place today, between all suppliers and retailers, often without the companies even realising it.

Suppliers share product information with retailers to ensure that the supply chain operates effectively and that their products reach the consumers. Retailers require product information from their suppliers to drive many areas of their business, for instance, new product introductions, warehousing, distribution and in-store systems.

Today, this sharing of information is largely done in a manual way, through emails, faxes and telephone calls. Yet it is essential that this product information is accurate at all times if the supplier's products are going to move through the entire retail supply chain as efficiently as possible.

The issues with data synchronisation



The main problem with data synchronisation today is that it is a *one-to-one* process. It operates between one supplier and one retailer. Different retailers require different product information in different formats. This means a supplier has to provide certain product information in a specific format for one retailer, different product information in another format for another retailer, and so on.

For the supplier, this is costly and inefficient. For the retailer, it can easily result in inaccurate information.

This problem is then made worse by the fact that the product information is usually only communicated by the supplier with the introduction of a new product. If changes are made to the product during its lifecycle, the updated information is not usually shared with the retailer.

This causes the product information held in the supply chain to become increasingly inaccurate and out-of-date.

Retailer issues with data synchronisation

- What does the supplier's fax say?
- Why is some of the required product information missing?
- Why does it take so much time to get the correct product information from a supplier?
- Why is the information held on a product incorrect and out-of-date?
- Why don't products fit in the designated shelf space?
- Why aren't all products identified correctly and why won't they scan at the check out?

Supplier issues with data synchronisation

- What product information is required for each retailer?
- What do the different new line forms from each retailer mean?
- Where is all the relevant information for a new product stored within the business?
- How can the required information for a new product be delivered to every retailer – accurately and on time?



GDS - the solution



Historically, there have been many country or sector-specific proprietary data synchronisation solutions, but this has only increased the problems faced by suppliers and retailers, by introducing multiple formats and multiple processes.

What has been needed is an industry-wide solution, developed by suppliers and retailers, for suppliers and retailers.

This was recognised by various industry groups including the Global Commerce Initiative (GCI) and GS1, the global supply chain standards body. They drove the development of GDS in order to streamline supply chain transactions and reduce supply chain costs.

In simple terms, GDS enables product information from one supplier to be made available to any chosen retailer using one common process. This information is defined using globally agreed standards which all parties can understand. It also ensures that the latest product information can be available to all retailers.

GDS includes over 200 standard attributes that describe a product. Examples of these attributes include; description, price, size, pack, name, address and the quantity of items in a purchase order. It is important to realise that as a supplier you do not need to enter all attributes for every product, only those attributes required by your retailer.

By using this globally accepted system, the supplier enters product information once and all chosen retailers can access secure, reliable and accurate information, ensuring greater supply chain efficiencies for all.

"We started our programme to take advantage of GDS by establishing a vision: We said that when we were finished, our trading partners would be using the same information to manage their day-to-day business as we used internally."

Milan Turk,
Managing Director of
Customer e-Collaboration,
Procter & Gamble



The Global Data Synchronisation Network



With GDS, suppliers and retailers exchange data through the Global Data Synchronisation Network (GDSN). This is an automated, standards-based global environment that enables the secure and continuous synchronisation of product information between trading partners.



Data pools

Suppliers and retailers access the GDSN via a data pool of their choice. A data pool is simply an electronic catalogue of standardised product information that manages the movement of this information throughout the network.

A supplier uses a *source* data pool to make product information available to retailers of their choice, and a retailer uses a *recipient* data pool to obtain this product information.

In order to operate as part of the GDSN, it is necessary for a data pool to be GDSN-certified. This ensures the data pool adheres to the latest GS1 standards and communicates with other GDSN-certified data pools in a defined manner. This guarantees the performance, reliability and security of the entire network and all the product information stored in the network.

The GS1 Global Registry

The GS1 Global Registry can be thought of as a yellow pages directory. It allows suppliers using GDS to register product information in one single location and tells interested parties, such as a retailer, which data pool contains this product information. This guarantees the uniqueness of the product information by ensuring it is stored in only one place.

The GS1 Global Registry also provides an opportunity for all suppliers, whether big or small, to increase the visibility of their product range – not just their existing trading partners but potential new ones. For instance, Australian retailers – global or local, large or small – can easily find a product manufactured on the other side of the world by a UK supplier.



How does GDS work?



Suppliers and retailers who want to synchronise product information through GDS follow five basic steps:

- 1 The supplier registers product and company information in its chosen data pool (this is known as *Load Data*).
- 2 A subset of this data is automatically sent to the GS1 Global Registry (*Register Data*).
- 3 Using the GS1 Global Registry to locate where the product information is held, the retailer, via its chosen data pool, requests access to a specific supplier's product or a product category (*Subscription Request*).
- 4 If the supplier agrees to this request, then the supplier's data pool publishes the complete product and company information to the retailer via the retailer's data pool (*Publish Data*).
- 5 The retailer then sends a confirmation to the supplier through the retailer's data pool directly to the supplier's data pool (*Recipient Confirmation*).

Many of the operations behind these steps are automatically undertaken by the chosen data pool, following GDS rules and standards, thereby ensuring the process of GDS is simple and efficient to both the supplier and retailer.



The GS1 System

The GS1 System is an integrated system of global standards that provides for accurate identification and communication of information regarding products, assets, services and locations. It is the most implemented supply chain standards system in the world.

The GS1 System is the foundation of a wide range of efficiency-building supply chain applications and solutions and is based on GS1 Identification Keys, a common recurring set of identification keys. The two most important keys to GDS are:

- 1 **Global Trade Identification Number (GTIN)**. This is the number you most commonly see printed as part of a product's bar code. The number identifies any item traded in the global supply chain that can be priced, ordered or invoiced.
- 2 **Global Location Number (GLN)**. This is an electronic 'address' which can uniquely identify any physical, function and legal location of a business.

You can read more about the GS1 System and GS1 Identification Keys at www.gs1uk.org

Data quality and accuracy



GDS relies on the supplier's version of the product information to drive the supply chain systems. Publishing inaccurate information prevents both suppliers and retailers from gaining value from GDS. Therefore, it is essential that the production information used in GDS is accurate.

GDS validation rules help with logic checks on product information as it is entered. Correct use of the GS1 System ensures the accuracy of GTINs, product classifications and product dimension relationships. For example, the GS1 packaging measurement rules help you determine the default front of a product, what the height, width and depth of the product are, what its base is and so on.

At Kraft, good data is so important to us. For example, if we put the number for 'depth' in the 'width' column, the retailer is not going to put our product in the right place, and it won't fit. So we've learned through experience that getting the data right, country by country, is critical to our success."

Hugh Roberts
President, International
Commercial Kraft Foods

"By improving the consistency of our data used in supply chains, we will be able to increase the accuracy of our orders and invoicing, thus saving administrative time, eliminating errors and helping us to improve our relationships with customers."

Parminder Basran,
The Authentic Food Company

The business benefits of GDS

In 2005, GCI and CapGemini conducted a study entitled "Global Data Synchronisation at Work in the Real World: Illustrating the Business Benefits", and found that:

- Dutch retailer Albert Heijn improved productivity in their data management department by 30%
- Wal-Mart decreased item maintenance from 15-30 days to one day
- Gillette Venezuela improved order processing productivity and eliminated master data discrepancies by aligning product information with their trading partners
- Johnson and Johnson decreased out-of-stocks by 2.5% by virtually eliminating data integrity issues
- Procter & Gamble increased purchase order accuracy by 3% by focusing on aligning obsolete products with La Fragua in Guatemala
- Unilever Columbia significantly reduced data inconsistencies and improved new item speed to market by two to three weeks
- US retailer Wegmans Food Markets increased store sales by reducing speed to market on new items by two weeks



What to do next



Supplier

As a supplier, it is important for you to understand more about GDS, and how it will affect your business.

- Understand your retailers' GDS requirements and what they expect from you
- Choose a GDSN-certified data pool
- Understand your own internal product information; where is it, who is responsible for it, is it accurate and is it current?
- Create a process to get your product information ready for GDS, and organised and processed for your retailer
- Get yourself fully trained on GDS and your chosen GDSN-certified data pool
- Pilot GDS with your retailer
- Implement GDS

"The most important element to a new data synchronisation program is to get management buy-in. Data synchronisation is a business issue, and business has to take the leadership in the process."

Ruud van der Pluijm Vice President, B-to-B e-Commerce, Royal Ahold

Retailer

As a retailer, it is equally important for you to consider the implications of GDS to your business and your suppliers, for example, to understand your own internal product information requirements and the impact this will have on your suppliers. It is also essential you get yourself fully trained on GDS and your chosen data pool.

"Adopting a data synchronisation strategy is every bit as valuable to the small company as it is to a large company. The value is in the reduced costs, in the trading partner collaboration, all of which are relatively more important to the small company in their competition with the large company. In some ways it's probably easier for them to deploy, because many of them have a much smaller base of items to implement in the first place. It's very important for SMEs to get involved in data synch and reap the benefits that are there."

Bob Noe, CEO, 1SYNC



For more information

GS1 UK can provide support, training and consulting services for the successful implementation of GDS in your business.

For more information please visit www.gs1uk.org or contact our helpdesk on +44 (0)20 7655 9001 or by email at dpinfo@gs1uk.org



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