
# GS1 Trusted Source of Data

## Pilot Report
**January 2012**

**GS1 aims to become the trusted source of data to support the communication of authentic product data provided by brand owners to consumers/shoppers, retailers and internet application providers using internet and mobile devices.**

Between July and December 2011 a global pilot was organised to perform a robust test of a proof-of-concept system developed in June 2011, with more participants and product data.

More than 30 brand-owners in 8 countries provided information on over 900 products that was used by 5 internet application providers in their mobile applications.

The pilot was a success! It clearly demonstrated that brand-owners can share consumer-facing digital product information with multiple internet application providers using a global and interoperable approach.

It also provided invaluable learnings that will help the deployment of the global trusted source of data (TSD) framework.

# Pilot Overview

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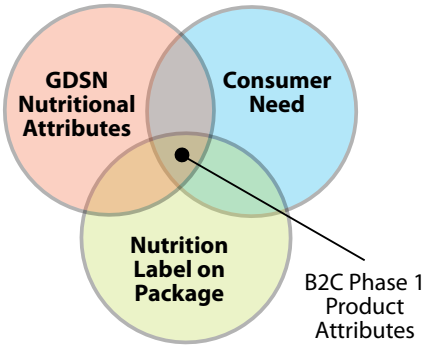



## Scope

The pilot is part of Phase 1 of this project. Phase 1 has been guided by research and analysis of consumer needs, information present on existing product labels and product attributes already defined in GDSN. As a result Phase 1 is concentrating on basic descriptive product information and a limited subset of nutritional information shown below. Given the focus on nutritional information, the scope is also limited to pre-packaged food products.

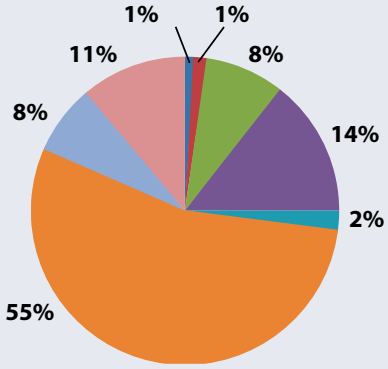
**Basic Product Information:**
Product Name / Brand Owner Name /Product Description / Product Image URL / Product URL

**Nutritional Product Information:**
Vitamins (Vitamin A - Vitamin C) / Calcium / Iron / Proteins / Calories - Energy (Total - Fat) / Carbohydrates (Total - Dietary Fibre - Sugars) Fat (Total - Saturated- Trans - Polyunsaturated - Monounsaturated) / Cholesterol / Sodium / Serving Size / Servings Per Container

## Participants

The following companies participated in the pilot:

- Brand-owners: Agua Mineral San Benedetto, Almacenes Éxito, Bonduelle, Capsa, Cadbury, Carrefour, Casino, Coca-Cola, Danone, Emmi, Eroski, Fromageries des Chaumes, Fromageries Papillon, Fromageries Perreault, Les Fromagers de Thierarche, Groupe BEL, Heineken, Hormel Foods, Lactalis, Lesieur, Kellogg's, Kraft, Marie Morin, Nestlé, Noel, PepsiCo, Premier Foods, Rausch, R&R Ice Cream, Smucker's, Taeq, Team, Tesco and Unilever
- GDSN Datapool: 1SYNC
- Certified 3rd Party Content Provider: Brandbank
- Data Aggregators: 1SYNC, GS1 NutriFacts Canada, MO2O, CABASnet and ProductOnLine.
- ONS: Peer ONS Root name servers, GS1 Test ONS and EU Root ONS, managed by GS1 Global Office and GS1 France respectively (until Federated ONS is developed and implemented)
- Gateway Service: GS1 B2C Alliance "Sandbox"
- Internet Application Providers: checkitmobile, epcSolutions, ipiit, Mirasense and Proxima Mobile

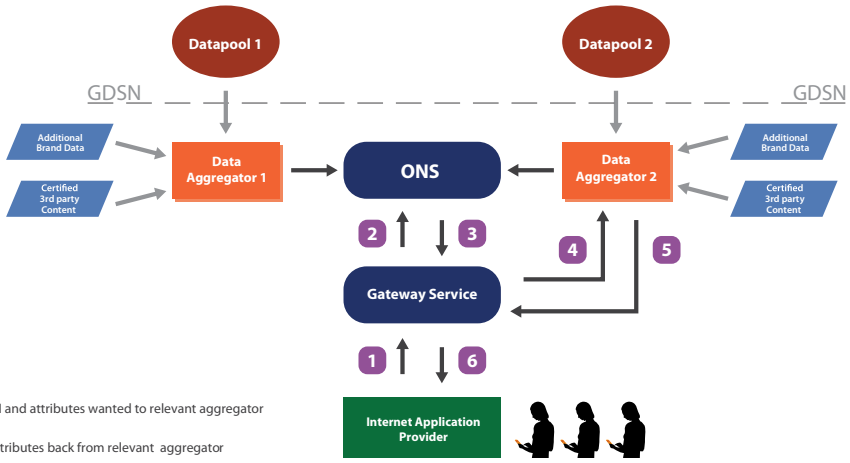



Product Registration by country for 910 pilot products

## Pilot Framework

The pilot framework was designed to leverage existing standards based on brand data used by the Global Data Synchronization Network (GDSN) and other accredited data sources.

A registry function allowed each product's Global Trade Item Number (GTIN) to be matched to the location of the aggregated product information.




1. Send GTIN to gateway service
2. Send EPC URI to ONS service
3. Get back URL of relevant aggregator from ONS service
4. Send GTIN and attributes wanted to relevant aggregator
5. Receive attributes back from relevant aggregator
6. Receive attributes back from gateway service

# Results

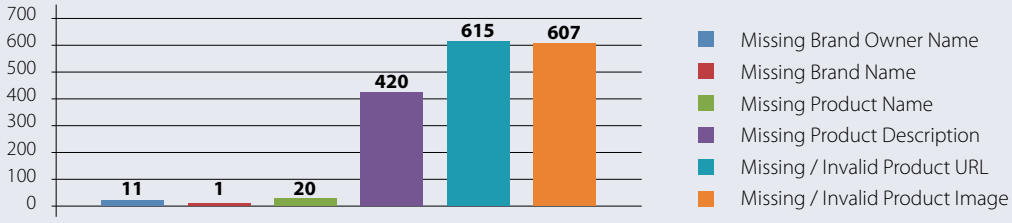
The pilot was a success! It clearly demonstrated that brand-owners can share consumer-facing digital product information with multiple internet application providers using a global and interoperable approach.

Testing showed that the average time for data transfer between internet application providers and data aggregators was 1.4 seconds. This means that the time between the bar code being scanned and the product data being displayed in the mobile application was on average between 3 and 5 seconds under normal operating conditions and so deemed appropriate for consumer applications.


Example screenshots from two of the mobile applications are shown below.

## Learning #1: High-quality data is a key to success

Data quality is improving. In the pilot, product name was missing in only 2% of cases, compared to 75% of cases in a GS1 UK market study in 2010. Despite this progress, product URL, product image, serving size and servings per container are attributes that are currently optional within GDSN, hence the large number of products missing this information.




Pilot data quality for key attributes of 910 pilot products

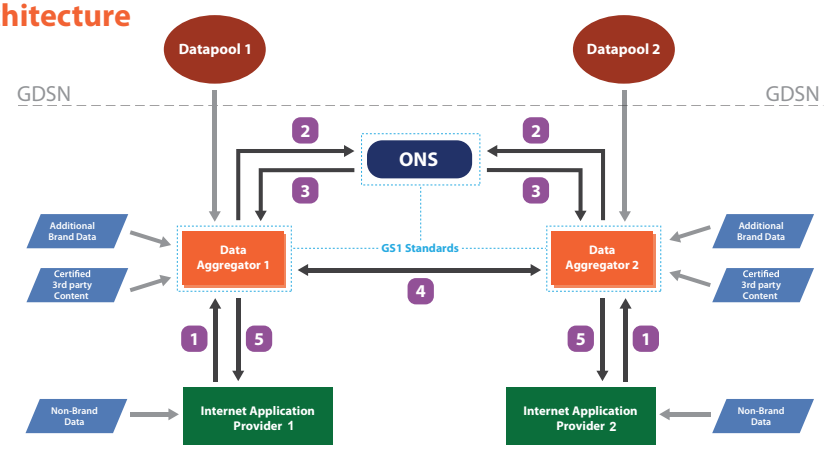
GDSN has multiple attributes for product description, thus creating confusion on which attributes should be used for consumer-facing information and so causing product description to be missing in many cases.

The pilot showed that both a data quality framework for B2C applications and guidance for populating consumer-facing product data are needed.

## Learning #2: Simplify the technical architecture

The Gateway Service served as the interface between requests from internet application providers and the response from the ONS registry about the data aggregator that was storing the product data.

However, if data aggregators could directly service internet application provider request then it will be possible to eliminate the need for a gateway service managed by GS1. In the deployment phase, the goal will be to work towards the simplified architecture vision.




**Scenario 1: Data delivered directly from local aggregator (approximately 80% of queries)**

1. Send GTIN to aggregator
5. Receive attributes from aggregator

**Scenario 2: Data not delivered from local aggregator (approximately 20% of queries)**

1. Send GTIN to aggregator
2. Send EPC URI to ONS
3. Retrieve relevant aggregator URL
4. Send and receive relevant attributes
5. Receive attributes from aggregator

# Next steps

The pilot can be deemed a success and the learnings from it are an opportunity to build the future foundations of a GS1 B2C Trusted Source of Data framework.

GS1 and relevant stakeholders will now focus on the deployment of the Global B2C TSD Framework by development of global standards and guidelines and a common operational model. Local aggregation has already begun in a number of the participating countries and will continue to operate. It is envisaged that more B2C data, conforming to the global framework, will be added while the interoperability standards and the operating model are developed and deployed.

**Acknowledgments**
GS1 would like to express its thanks to all those who participated in the pilot and in particular to the B2C Project Board, the GS1 B2C Experts Group and the staff and resources involved with the pilot at GS1 Australia, GS1 Colombia, GS1 Canada, GS1 Germany, GS1 France, GS1 Spain, GS1 US, GS1 UK, 1Sync, checkitmobile, epcSolutions, ipiit, Ken Traub Consulting, Mirasense, Proxima Mobile and Verisign.

**Find out more**
For more information about the pilot and the current status of the GS1 B2C Trusted Source of Data project, contact Cameron Green at **cameron.green@gs1.org.**

Download the full Pilot Report from : **www.gs1.org/b2c**