



---

# Data Synchronization Road Map for The Alcohol Beverage Industry

---

WHITE PAPER

June 2007

Version 1.1

## **Acknowledgements**

The Alcohol Beverage Industry Electronic Commerce Council (ABI EC) appreciates the contributions of its Members, Jeff Holzman of LANSAs, Inc., 1SYNC™ and other industry members for their contributions to this document. All believe data synchronization will change many of today's basic business processes and practices and make the industry more efficient.

# **Data Synchronization Road Map for The Alcohol Beverage Industry**

**Distributed by the Alcohol Beverage Industry Electronic Commerce Council**

© 2007 ABI EC

## Table of Contents

Data Synchronization Road Map for the Alcohol Beverage Industry .....	3
What is Data Synchronization? .....	3
Benefits of Data Synchronization .....	4
The Key Elements of Data Synchronization.....	5
The Global Data Synchronization Network .....	5
Certified Data Pools .....	5
GS1 Global Registry .....	6
How it Will Work for the Alcohol Beverage Industry .....	7
Supplier to Distributor.....	7
Distributor to Retailer .....	8
Implementation Road Map .....	9
Determining What Data Is Required .....	10
Data Synchronization Tools .....	11
Industry Research .....	12
Tax Benefits Through Data Synchronization.....	13
Future Developments.....	13
Summary.....	14

# **Data Synchronization Road Map for the Alcohol Beverage Industry**

## **What is Data Synchronization?**

Data synchronization enables suppliers, distributors, and retailers to continuously update and share product information and attributes such as product height and weight electronically. It enables suppliers to publish product information one time to a global network and that information is then distributed to all authorized recipients on the network.

Data synchronization provides the seamless integration of product information throughout the supply chain. The supplier can easily and effectively communicate with the distributor who can then efficiently deliver the product to the retailer. Improving the transmission of this data enables faster new product introduction, more efficient shipping methods, and an accurate way to reconcile the product data within an organization.

Other industries such as grocery, mass merchandise, hardware, and electronics have been using data synchronization for years. Currently, more than 11,000 suppliers, retailers, brokers, distributors, and wholesalers around the world synchronize data using GS1's Global Data Synchronization Network® (GDSN®) and more than 40 members of the global alcohol beverage industry have already subscribed to use the GDSN.

Recently, the Alcohol Beverage Industry Electronic Commerce Council (ABI EC), an industry group comprised of leading suppliers, distributors, and trade organizations recommended that all suppliers implement data synchronization by June 30, 2007. ABI EC believes that data synchronization is a key step to an efficient and cost-effective supply chain. Suppliers have been advised to contact a certified Data Pool to register their organizations and products. Also, data synchronization is the starting point for future global supply chain initiatives such as the Electronic Product Code™/Radio Frequency Identification (EPC/RFID), collaborative commerce, anti-counterfeiting, and traceability.

## Benefits of Data Synchronization

Data synchronization benefits all members of the supply chain. Data synchronization provides:

- A cost effective solution leveraging a single standard to share product information; this enables suppliers, distributors, and retailers to benefit from the elimination of redundant communications to multiple sources.
- Consistent, accurate data, which reduces incorrect data communications; incorrect data communications result in the wrong product or quantities being shipped, which costs everyone money and resources to resolve.
- Continuous communication, which enables all customers to receive the same product information from the vendor as soon as the vendor makes changes. This continuous updating of product information ensures that the data is accurate and all supply chain partners are using the same information.
- Data communications in one format from one source through the use of a single global standard. This helps to reduce errors and time spent transmitting the data. In fact, the greatest return on investment comes when you synchronize product information with several partners.

All of the above result in a measurable return on investment. Other benefits include: increased worker productivity due to the reduction of performing redundant tasks for multiple vendors; a reduction in data errors decreases costs in shipping, distribution, and re-shelving; sales increase when new products arrive in stores faster.

## **The Key Elements of Data Synchronization**

The following section details the key components of data synchronization.

### **The Global Data Synchronization Network**

The Global Data Synchronization Network or GDSN is an internet-based, interconnected network of certified interoperable Data Pools and a global registry (the GS1 Global Registry®) that enable companies around the globe to exchange standardized and synchronized supply chain data with their trading partners.

The GDSN assures that data exchanged between trading partners is accurate and compliant with the globally supported GS1 standards.

The GDSN consists of trading partners (suppliers and retailers), Data Pools (services that hold and process trading partner data) and the GS1 Global Registry (a worldwide directory to locate data sources and manage ongoing synchronization relationships between trading partners).

### **Certified Data Pools**

GDSN Certified Data Pools use industry standards to synchronize information in the Global Data Synchronization Network (GDSN).

Data Pools store the product details that are transmitted to approved Data Pool subscribers. Data Pools also check data to ensure that it is valid, collect product information, and register the data with the GS1 Global Registry via GS1 Business Message Standards using XML. XML messages are also used to exchange item information with the requestor's Data Pool.

The GDSN provides a single point of entry so data can be synchronized, which reduces overall supply chain costs. Importantly, the GDSN works with a number of Data Pools and provides the GS1 Global Registry, which enables all users to find and synchronize trade item data using subscription requests and supplier-approved data transactions. For instance, when a vendor offers a new product to a retailer, the retailer simply sends a request for the new product in order to receive the product data. The data transmission occurs over secure internet transmissions. Companies from around the world can exchange data with their trading partners. The GDSN assures that data exchanged between trading partners is accurate and compliant with global standards.

A certified Data Pool can exchange data with any other certified recipient Data Pool in the network.

## **GS1 Global Registry**

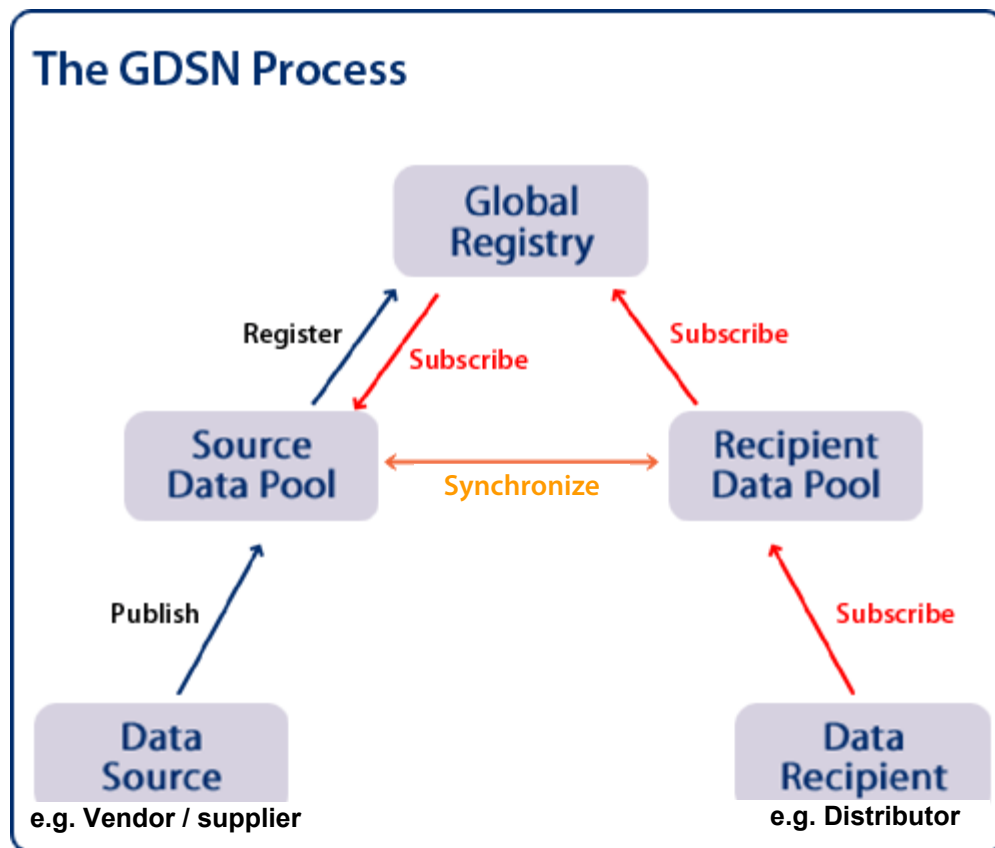
The GS1 Global Registry acts as a "yellow pages directory" providing information for network subscriptions, enabling Data Pool interoperability, guaranteeing uniqueness of the registered products and companies, ensuring all Data Pools in the network comply with a common basic set of validation rules supporting data integrity, and storing the information about who has subscribed to product or company data.

## How it Will Work for the Alcohol Beverage Industry

The alcohol beverage industry uses a three-tier distribution system. Suppliers or vendors, sell their product to distributors. Distributors then sell to retailers and other customers such as restaurants, hotels, clubs, etc. The unique three-tier business process of the alcohol beverage industry means that distributors receive product data from suppliers and supply product data to retailers and other customers.

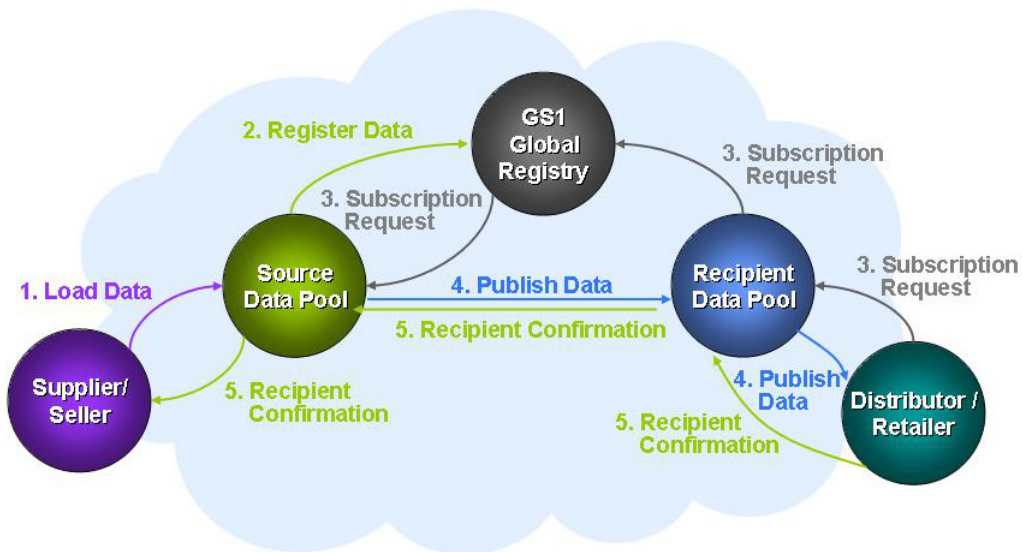
### *Supplier to Distributor*

In the vendor/supplier to distributor scenario, the supplier inputs the data into a Data Pool and publishes the data to the GS1 Global Registry. When a distributor requires supplier product information, the distributor sends a data request via the GS1 Global Registry to the supplier. The supplier then directly communicates the product information from its Data Pool to the distributor's Data Pool. If the supplier changes any product information, it is automatically sent to the distributor. The following graphic illustrates this synchronization.



## ***Distributor to Retailer***

A similar chain of events occurs between the distributor and the retailer. In the distributor to retailer scenario, the distributor inputs data into a Data Pool that is then published to the GS1 Global Registry. When a retailer requires distributor product information, the retailer sends a data request via the GS1 Global Registry to the distributor. The distributor then directly communicates the product information from their Data Pool to the retailer's Data Pool. If the distributor changes any product information, it is automatically sent to the retailer. The following graphic illustrates this synchronization.



## Implementation Road Map

At this point, global data synchronization sounds great. There is direct benefit to implementing it within companies and it is becoming a common practice in the industry. What needs to be done to get started?

1. Involve all key departments in the company. This project requires input and execution from sales, finance, supply chain partners, merchandising, and Information Technology. It is not just an Information Technology project.
2. Research and choose your company's Data Pool and software provider. A list of certified Data Pools is available at [www.gs1.org](http://www.gs1.org) in the GDSN area; also check with industry contacts for guidance and references.
3. Communicate with all trading partners to ensure all understand the data requirements. Also, communicate what is expected from each trading partner as well as the expected data synchronization start date. If a trading partner has relevant experience in this process, take advantage of it.
4. Ensure the data is accurate and correct. For instance, consider performing a random quality check on items to make sure the data that will be transferred to the Data Pool is accurate. Bad data will sabotage any positive results that data synchronization provides.
5. Prepare to synchronize data for all current items by determining what data is required and what tool you will use to link the data with the GS1 Global Registry.
6. Communicate the final product data synchronization strategy and implementation plan to all members of the supply chain.
7. Integrate data synchronization with the in-house systems and data. Identify what data is needed and where it is in the internal system. This enables the organization to take advantage of the value of the data. For instance, new item set up, warehousing, and planning data can be used by supply-chain partners as well as the company's divisions.
8. Publish the data to the Data Pool and respond to distributor or supplier requests for trade item synchronization.
9. Update trade item information as needed.

## Determining What Data Is Required

Data synchronization provides electronic communication of product and location details on a continuous basis. Item information consists of attributes determined by the supplier, distributor, or retailer and can include U.P.C., height, weight, percent proof, and more. Location information can include where the item originates, is shipped to, and billing details. The item and location information is determined by the attributes provided by the supplier or distributor and required by the retailer. These can be as detailed as the situation requires. For instance, some distributors that supply control states may require an attribute to indicate special delivery or tax data. As the item details change and emerge, the information can be updated continuously.

To get the results wanted, the master product data must be accurate. Fortunately, if a discrepancy is found, the problem can be automatically corrected with all vendors in one step. Determining the attributes to include for the item is dependent on the level of product being sold or received. Many of these attributes can be used to accurately determine the taxes due.

For an individual trade item or product also known as the “each” item, communicate:

- A form of product identification such as a U.P.C., or Global Trade Item Number® (GTIN®).
- Size and weight information, such as volume, height, length, width, and weight.
- Specific product information, such as country of origin, year produced, alcohol by volume, etc.

For a case or pallet, communicate:

- A form of product identification such as a Global Trade Item Number (GTIN).
- Size and weight information, such as volume, height, length, width, and weight.
- Case information such as how many bottles are within each case.
- Order details, such as the number of bottles per case, number of cases on a pallet, lead time, orderable quantities, and new product availability dates.

## Data Synchronization Tools

Data synchronization tools link your data to the GS1 Global Registry. In the past, global data synchronization was time-consuming and considered expensive to implement. Recent studies have shown, this is no longer the case. Many third-party solutions are available or an in-house solution can be developed. Industry studies indicate purchasing a software package can reduce implementation costs by 90 to 95 percent. Using a third-party solution rather than developing an in-house solution reduces the time and complexity to implement data synchronization. Typically, implementing a third-party solution takes two to six months for demand-side customers and one to three months for supply-side customers.

Data Pools can provide resources to help with data discovery and implementation including lists of solution providers. Visit [www.gs1us.org](http://www.gs1us.org) for a current list of GDSN certified data pools. Implementing your own solution is also supported.

## Industry Research

Research focused on the potential benefits of data synchronization to the alcohol beverage industry includes:

- **Project Match** – Conducted by LANSA, Inc., a data synchronization software supplier, to determine if product alignment could work in the alcohol beverage industry. Participants included Diageo, Southern Wine & Spirits, and Glazer’s Wholesale Drug Company. After defining product attributes, Diageo published and transmitted data to Southern Wine & Spirits, Glazer’s, and Wal-Mart. After receiving the data from Diageo, Southern Wine & Spirits and Glazer’s added and published the GTIN details for the customer. Ultimately, this project showed that certified Data Pools and GDSN can support the three-tier business model required by the alcohol beverage industry.
- The **National Alcohol Beverage Control Association (NABCA)** represents the 19 state systems where government jurisdictions control the distribution and sale of alcohol. In a recent pilot program, Barton Brands and Sazerac Distilleries used a certified Data Pool to publish data to NABCA. Then, NABCA delivered that data to the State of Alabama for use in its systems.
- The **National Beer Wholesalers Association (NBWA)** has documented the impact of data synchronization on the beer industry and recently introduced an industry implementation strategy. *The Impact of Global Data Synchronization on the Beer Industry* provides detailed information for the members of NBWA.
- **Global Data Synchronization at Work in the Real World: Illustrating the Business Benefits** – The Global Commerce Initiative (GCI) and Capgemini, conducted this study. Study participants included AEON, Albert Heijn, Wal-Mart, Gillette Venezuela, Johnson and Johnson, Procter & Gamble, Unilever Columbia, and Wegmans Food Markets. Collectively participants found that using global data synchronization:
  - Shortens trade item time to market
  - Reduces data discrepancies with trading partners
  - Improves data management productivity
  - Reduces item maintenance
  - Increases store sales due to faster speed to market for new items
  - Improves order-processing productivity
  - Reduces out-of-stock items
  - Increases purchase order accuracy

Visit [www.abiec.org](http://www.abiec.org) in the Reference/Archive section under Data Synchronization to review this study.

- **Synchronization – The Next Generation of Business Partnering** – Accenture conducted this study sponsored by the Food Marketing Institute (FMI), the Grocery Manufacturers Association (GMA), Wegmans Food Markets, and 1SYNC. Study participants included Coca-Cola Company, General Mills, Hershey, PepsiCo, Wegmans, Procter & Gamble, the J.M. Smucker Co. and Nestlè. Participants reported up to a 64% improvement in supply chain operations and 67% improvement in customer relations as well as other significant improvements as shown in the following graph provided by the study.

Visit [www.abieec.org](http://www.abieec.org) in the Reference/Archive section under Data Synchronization to review this study.

## Tax Benefits Through Data Synchronization

The GS1 standards include a Beverage Country of Bottling attribute. This feature gives the alcohol beverage industry greater accuracy in determining tax assessments on distilled spirits. Due to changes in federal tax regulations on domestic and imported spirits, this new data synchronization feature has the potential to generate millions of dollars in tax credit savings annually for distributors.

Using this global standard attribute, manufacturers and distributors using data synchronization can easily identify where the spirit was bottled. The Beverage Country of Bottling attribute provides the industry a standardized way to identify domestic and imported spirits, synchronize this information between suppliers and distributors, and determine proper taxes accordingly. It has been estimated the distributors will save millions of dollars through the proper identification of where a liquor was bottled.

## Future Developments

Once product information is being synchronized there are a number of other potential synchronization applications which can be developed and implemented including:

- Price information (In pilot testing now in some industries)
- Promotional information
- Marketing information
- Location information
- Product classification information

Watch the ABI EC website for updates on these initiatives and alcohol beverage industry participation.

## Summary

By implementing data synchronization, the alcohol beverage industry can improve productivity, time-to-market, efficiency, optimize business processes, and reduce costs. Continuous data synchronization will build a more efficient supply chain by:

- Enabling new product introduction to occur in a more efficient manner
- Enabling participants to re-use supply chain data
- Ensuring consistent, accurate data by incorporating validation and continuous transmission
- Reducing item discrepancies on orders as well as the time spent resolving those discrepancies

The roadmap presented here illustrates the steps to realize the benefits of global data synchronization within your organization. Industry members can utilize solution providers or develop their own in-house systems to support data synchronization. Ultimately the improvements from continuous data synchronization will result in improved customer satisfaction and sales.

### About the Alcohol Beverage Industry Electronic Commerce Council (ABI EC)



ABI EC provides a forum for Alcohol Beverage Industry members to work together to further the use of electronic commerce. Current Members include Bacardi, Brown-Foreman, Charmer-Sunbelt, Constellation Wines, Future Brands, Glazer's Distributing, Southern Wine and Spirits, William Grant and Sons USA and others. For more information visit, [www.abiec.org](http://www.abiec.org)

### About GS1 GDSN



GDSN (Global Data Synchronization Network) is an automated, standards-based global environment that enables secure and continuous data synchronization, allowing all partners to have consistent product data in their systems at the same time. The GDSN consists of trading partners (suppliers and retailers), Data Pools (services that hold and process trading partner data) and the GS1 Global Registry (a worldwide directory to help the GDSN community locate data sources and manage ongoing synchronization relationships between trading partners). For more information, visit [www.gs1.org/productssolutions/gdsn](http://www.gs1.org/productssolutions/gdsn)

## About LANSA



LANSA provides application software packages, EDI integration, AS2, EDI-INT, eBusiness solutions, technology integration (EAI, SOA) and application development tools to customers in 70 countries. LANSA is a leading IBM Partner in Development, Microsoft Gold, and ORACLE Partner. LANSA Data Sync Direct is a fully multilingual, cross-platform solution. For more information, visit [www.lansa.com](http://www.lansa.com)

## About 1SYNC



1SYNC is a certified data pool in the Global Data Synchronization Network (GDSN). 1SYNC offers a range of data synchronization services that eliminate costly data errors, increase supply chain efficiencies, improve collaborative business practices, and promote the advancement of next-generation technologies, such as the Electronic Product Code (EPC). 1SYNC has offices in the U.S., Brazil, and the U.K. For more information, visit [www.1sync.org](http://www.1sync.org)

