White Paper

Food Service and Data Synchronization

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The International Food Distributors Association (IFDA) and GS1 US™ would like to thank the EFR/GS1 US Committee for their work on this paper.

Additionally, the following participants of the committee were critical to the development of this document.

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IFDA is a Washington, D.C. based trade organization representing foodservice distributors throughout the U.S., Canada, and internationally. IFDA's 130+ members include broadline, systems, and specialty foodservice distributors that supply food and related products to restaurants, institutions, and other food away from home foodservice operations. IFDA members operate more than 550 facilities, and sell more than $75 billion in food and related products to the fastest growing sector in the food industry.

GS1 US is a not-for-profit organization dedicated to the adoption and implementation of standards-based, global supply chain solutions. GS1 US-based solutions, including business processes, GS1 Business Message Standards using Extensible Markup Language (XML), Electronic Data Interchange (EDI), and the bar code identification standards of the GS1 System, formerly the EAN.UCC System, are currently used by more than one million companies worldwide.

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Introduction to Foodservice

The traditional foodservice distribution industry includes businesses and organizations that prepare and serve food eaten away from home. Products distributed by foodservice distributors include full lines of frozen foods (such as meats, fully prepared entrees, fruits, vegetables, and desserts), canned and dry goods, fresh meats, imported specialties, and fresh produce. Foodservice distributors also supply a wide variety of nonfood items, including paper products (such as disposable napkins, plates and cups), tableware (such as china and silverware), restaurant and kitchen equipment and supplies, medical and surgical supplies, and cleaning supplies. Many distributors provide both nationally branded merchandise and products packaged under their own private brands.

Foodservice distributors focus on close contact with customers. Prompt and accurate delivery of orders is crucial, as is the ability to provide a full array of products and services to assist customers in their foodservice operations. Distributors offer daily delivery to certain customer locations and have the capability of delivering special orders on short notice. They keep informed of the needs of their customers and introduce new products that meet those needs. Many distributors provide additional services to their customers, such as product usage reports, menu-planning advice, contract services for installing kitchen equipment, installation and service of beverage dispensing machines, and assistance in inventory control.

Typically, foodservice distributors do not have long-term contracts with the majority of their customers. Therefore, either party, at its option, may cancel a business relationship. If a foodservice distributor delivers to multi-unit accounts, chain restaurant accounts, or certain state and federal accounts, such business is normally obtained through a process of competitive bidding.

Foodservice distributors typically purchase from numerous sources. These sources generally consist of large corporations selling brand name and private label merchandise, or independent private label processors and packers. Depending on the size and type of foodservice distributor, their SKUs can vary from 3,000 to over 25,000. Purchasing can be carried out through centrally developed purchasing programs and buying groups, or through decentralized direct purchasing programs.

Today's Changing Foodservice Environment

Foodservice is not insulated from the changing dynamics of the marketplace. Today's customers have higher expectations than ever before. Operationally, as margins shrink and competition intensifies, the twin requirements of customer service and an efficiently run enterprise go hand-in-hand.

While one can build a new state-of-the-art warehouse or distribution center and implement new warehouse and inventory systems, keeping to old practices and processes will hamper a company's ability to provide truly effective customer service and achieve the benefits offered by newer technologies.

Foodservice companies have unique operating conditions because of the types of products handled. As an example, market or order based pricing adds a level of complexity to the trade party relationship.

During the 1990s, to obtain necessary information to control costs, foodservice distributors increasingly used a variety of enterprise ERP systems and Internet based technologies to manage and optimize their businesses. Examples include logistics planning and management systems such as onboard trip recorders, transportation management systems, routing systems, warehouse management systems, order entry systems, inventory management systems, accounting systems, inbound freight systems, and activity based costing.

Today, foodservice distributors are looking beyond the enterprise to supply chain technologies. With the introduction of supply chain collaboration, the data related to the movement of goods throughout the supply chain provides greater business insight. As a result, foodservice distributors are faced with the challenge of building and maintaining infrastructures that both connect enterprise systems and support the smooth and accurate data flow between their internal systems and those systems of their supply chain trading partners.

Progressive distributors understand the need to integrate software systems to track product through the supply chain in virtual real-time. This requires the ability to get the right data flowing from the right sources to the right places in order to replicate the flow of goods. Examples include:

- Tracking vendor performance - delivery against purchase orders and deadlines
- Generating schedules for inbound and outbound freight by integrating transportation management system (TMS) data to warehouse management system (WMS) data
- Ensuring product availability and initiating the product replenishment process by integrating order entry systems with warehouse management systems and inventory
- Promoting data synchronization and maintenance of up-to-date product and price data between internal enterprise pricing systems and the sales representatives' order guides

The true cost of inaccurate information among supply chain partners is far more significant than most companies realize. Many companies do not recognize the additional time and resources that are expended due to bad data. Companies also underestimate the lost sales that relate to inaccurate data as they attempt to understand category performance with their end customers. Unknowingly, companies preserve costly and inefficient manual data entry practices that perpetuate inaccuracies and inefficiencies, which lead to purchase order and invoice errors, out-of-stock conditions, inflated inventory levels, selector/picker errors, poor fleet utilization, excessive product returns, sales force and customer confusion, and excessive staffing levels.

Inaccurate supply chain data causes foodservice distributors to spend thousands of hours per year receiving, manually entering, and tracking new item data sheets from their suppliers.

- Category managers spend hundreds of hours each year receiving, checking and adjusting updates to existing item information.
- Buyers spend hundreds of hours each year reviewing and correcting item and price information in purchase orders.
- Warehouse personnel waste hundreds of hours each year reconciling product information such as description, size, or weight which does not match information in the distributor's internal system.
- Drivers spend hundreds of hours per year double and triple handling product that customers refuse because it is not what they ordered.

Data synchronization can resolve these and many other issues by ensuring the accurate alignment of data between the distributor's purchase orders and the manufacturer's manifests. Ultimately, through data synchronization, unnecessary costs associated with inaccurate data can be driven out of the supply chain.

Mergers and Acquisitions – Accelerating the Challenge of Inaccurate Data

The pace of mergers and acquisitions in the late 1990's pushed systems integration to the forefront as one of the single largest challenges for corporations. Synchronizing and integrating two companies' data in a seamless fashion is a large task affecting every area of a company – sales, purchasing, accounts payable, accounts receivable, inventory control, warehousing, and transportation. Failure to quickly and accurately integrate systems demotivates the sales force, destroys the acquiring company's attempts to improve overall morale between the two companies, and causes customers to seek another distributor that can deliver and price product correctly. Failure to integrate data also restricts management's visibility of the entire business.

Integration problems result when an in-house proprietary approach exists, with companies inventing their own rules, giving rise to a host of different approaches. With no uniform industry standards in place, parties are forced to manually match and transfer data, compounding the time and effort required, and increasing the chances of error.

In the activity-laden world of foodservice, keeping track of products, services, and trading partners is a never-ending process. As part of the fast paced negotiations between trading partners, there are numerous information requirements that must be captured, maintained, and distributed. The lack of consistent data between the parties often leads to costly rework.

Product and Price Discrepancies – Getting to "Clean" Orders

Many times a customer orders a product only to have a different product delivered. The lack of concise, indisputable identification and information about a product often leads to disagreements between trade parties.

Of all the issues that result in disputes, product pricing is the most contentious. A deal assumes that both parties are clear on the terms of their arrangement – and in particular, what the price will be for the product. However, this is not always the case. Price disputes cause incalculable hours of work for both parties, which negatively impacts the bottom line.

Delivery Discrepancies – The Impact on Customer Service

Correct trading partner information is critical to ensure good trade relationships. There are situations where product is delivered to the wrong trading partner due to inaccurate delivery information. Customer service levels are impacted when the customer fails to receive an ordered product.

Impact of Discrepancies

Inefficiency in the marketplace, at its base level, represents pure cost to trading partners. Higher costs mean less revenue and profits. The cost impact may be reflected in immediate lost sales, lost customers, disgruntled relationships, extra work, added transportation costs, and just plain additional aggravation to the daily work process.

Especially in today's tight, competitive environment, extraneous business processes remove value from a business.

By using currently available technology and investments such as Electronic Data Interchange (EDI) and bar codes, and embracing newer Internet technologies, including the use of Business Message Standards developed by GS1, the stage is set for a more streamlined, cost-effective supply chain.

To address the various supply chain challenges and discrepancies, we must first start with the use of global standards.

The Case for Global Standards

It is well understood that the more human involvement a process requires, the more opportunity there is for error. Data errors typically occur when:

- Item codes or prices are manually keyed into a system
- Information is taken over the telephone
- Information is taken from a form and keyed into a spreadsheet
- A person key-enters a long list of numbers
- Individual employees are required to remember exception processes

The key to a successful and efficient enterprise is to eliminate these error-prone processes. The benefits that accrue to a business include:

- Fewer order entry errors
- Reduced purchase order variances
- Fewer shipment mistakes due to item number errors
- Fewer invoice and credit memo errors
- Reduced invoice errors
- Shorter cycle times for invoice processing

While EDI and Extensible Markup Language (XML) were developed to exchange information from one computer to another, the mere transmission of business information alone does not ensure a synchronized, error free trading partnership. For example, when a supplier makes changes to a purchase order, the new data must be transmitted to each foodservice distribution trading partner, who in turn must be able to interpret this data and integrate it with the appropriate system.

A global standard (common language) allows companies to reduce the time and resources dedicated to administrative activities, and start devoting more time to activities that are productive.

The GS1 System is a suite of standards which provide a starting point for addressing product identification or trading partner identification issues. GS1 identification numbers were developed to assist all supply chain participants in their trade processes.

When a company is assigned a unique GS1 Company Prefix it allows a company to operate its business anywhere in the world and be properly identified by other trade parties.

The GS1 Company Prefix forms the basis for other identification numbers that are used in the supply chain. The main identification numbers are:

- Global Trade Item Number® (GTIN®) – a number that uniquely identifies a product in a company's records/database, and is used during the ordering, delivery, receiving and payment processes

- Global Location Number (GLN) – a number that uniquely identifies a location pertaining to a company, a division of a company, a restaurant, a distribution center, or even a department, such as Accounts Payable

By identifying each product with a GTIN, the product owner ensures that the product is uniquely identified globally. Regardless of who transports or sells the product, it is still identified as the supplier's product. When a trading partner uses a GTIN consistently, the use of cross-reference tables is avoided and therefore the possibility of inconsistencies between systems is eliminated.

By identifying each relevant business location with a GLN, a business – such as a manufacturer or distributor – ensures that the operation is uniquely identified globally. Having the correct name and address of a trading partner is important. The buyer of products, such as a foodservice operator, also needs to establish its GLNs to enable unique identification of the operator establishments (restaurant, hospital, school, etc.). By using a GLN (and its accompanying information) for trading party identification correctly, the potential for misdirected deliveries or misrouted information flows is removed.

Optimum benefits are achieved through the use of the GTIN and GLN within the company's enterprise systems, again eliminating the need for cross-reference tables and the ongoing maintenance issues they incur. GTIN and GLN usage among trading partners is critical to ensuring that all parties know what products are being referenced and with which parties business is being conducted.

Once GTINs have been created for the products and GLNs for the business locations are established, a company is ready to take the next step toward supply chain clarity with Trade Item and Party Registration.

Trade Item and Party Registration using Data Pools

A manufacturer or distributor of product needs to ensure that the operator has the same information about the products offered for sale. The seller also needs to provide information to direct invoice payment.

The operator needs to provide information to the seller regarding delivery locations and contact information.

To enable trade item and party information synchronization, GTINs and GLNs, with accompanying detail information, are loaded by trading partners to databases operated by certified data pools. These secure data repositories contain standardized, validated data.

GTINs and GLNs are also loaded to the GS1 Global Registry™. The GS1 Global Registry is the worldwide registry that links information about products and participants of the Global Data Synchronization Network (GDSN). The GDSN is a network of interoperable data pools and the GS1 Global Registry, for communicating 'master data' (trade item and party) among trading partners.

Additionally, as trade items are registered, each product is assigned a Global Product Classification (GPC) code.

Data Synchronization

Businesses evolve. People come and go. Companies come and go. Product lines change as the needs of customers change. Sources change. New products are developed. Slow moving products are dropped. New distribution centers open.

How do trade parties ensure that information is kept current?
Data synchronization keeps information current. Data synchronization is the ongoing process of maintaining up-to-date information about the products and trade parties in the GDSN. The GS1 Global Registry enables all products and trade parties of the GDSN to communicate product and trade party information among trading partners, keeping that information current. So as new products are introduced, or when a foodservice trading partner opens a new location, this information is transmitted electronically through the data pools to the GS1 Global Registry. After the data is processed, all relevant trade parties are notified of updated information.

Several studies have been undertaken which show that migrating to data synchronization can save a company thousands, if not millions, of dollars in operational-related costs and/or cost avoidance. In 2002, A. T. Kearney, using a newly developed model, was asked by the GMA-FMI Trading Partner Alliance to conduct a review of six companies – three manufacturers and three retailers – and the impact of data synchronization on their respective businesses. Figure 1 illustrates the improvements that can be expected.

Benefits of Data Synchronization *

BENEFIT	RETAILER	MANUFACTURER
Inventory Reduction	0.5 – 1.0% ⬇	0.5 – 1.0% ⬇
Out of Stock Reduction	2-4% ⬇	2-4% ⬇
Reduced Cost of Reconciliation of Errors	5-10% ⬇	10-20% - customer service and finance ⬇
Reduced Logistics Costs	1%+ ⬇	1%+ ⬇
Reduced Receiving Times	1,000+ hours ⬇	1,000+ hourS ⬇
Enhanced Speed to Market	2 weeks ⬆	2 weeks ⬆

* A. T. Kearney study

Figure 1

Data Synchronization *continued*

While the study focused on the traditional manufacturer/retailer relationship, foodservice trading partners – manufacturer, distributor, and operator – can also expect to benefit in a similar manner.

Data synchronization is an investment in a company's long-term operation, though paybacks can be significant even on the short-term horizon. By having synchronized data – without any other changes – order, deliver, invoice, and payment processes will be improved.

Getting started involves a close examination and 'cleansing' of a company's item and vendor databases. This is where the most significant work effort traditionally occurs.

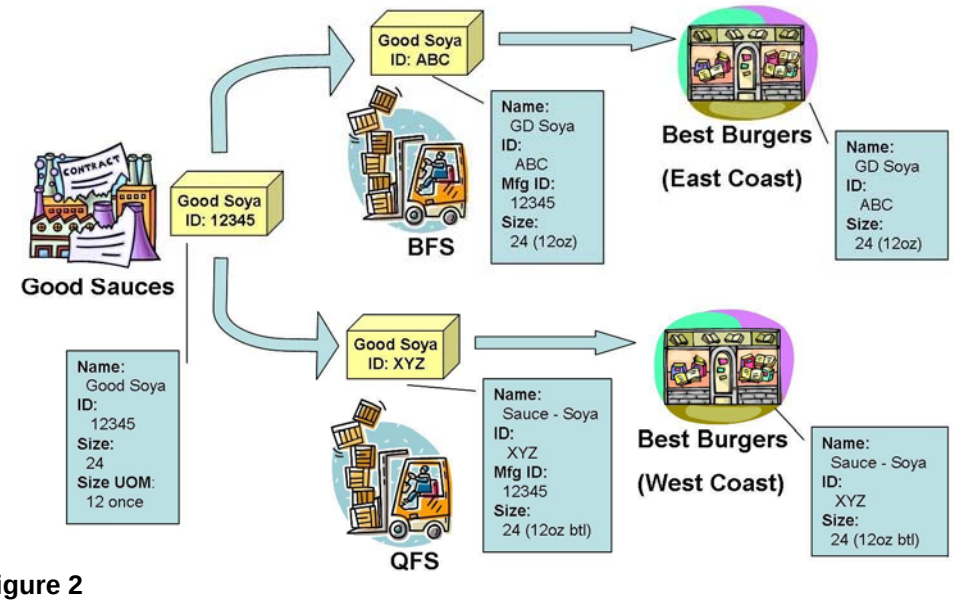


Figure 2

A Real Foodservice Scenario

The inefficiencies and confusion introduced by a lack of data synchronization in foodservice can be best illustrated through the following scenario.

The Supply Chain Servicing "Best Burgers"
In Figure 2, the manufacturer is a leading supplier of condiments, called Good Sauces. A national chain of American cuisine, called Best Burgers, negotiated a contract with Good Sauces to purchase the famous Good Soya sauce at an agreed price for all of its units. Since Best Burgers is a national chain, the distribution contract is awarded to two regional distributors. Best Foodservice (BFS) serves the East coast units of Best Burgers and Quality Foodservice (QFS) serves the West coast units.

Figure 2 illustrates how product information can vary through the foodservice chain to a point where the manufacturer and operator have difficulty reconciling product information. Figure 3 highlights the differences in product information between the manufacturer and operator.

Product Attribute	Manufacturer Value	Distributor and Operator Value
Description	Good Soya	GD Soya Sauce – Soya
Product Identifier	12345	ABC XYZ
Size	24	24 (12 oz) 24 (12 oz btl)

Figure 3

Implications of Unsynchronized Product Information

Closer examination of the Good Sauces/Best Burgers scenario highlights several potential sources of inefficiency and additional overhead costs:

- The Need for Cross-Reference – Best Foodservice (BFS) and Quality Foodservice (QFS) must cross-reference the Good Sauce product identification number for Good Soya sauce in their respective back-office systems, which complicates order tracking and tracing at the supply chain level.
- Re-Keying Information – Both distributors must re-key the product information for Good Soya, which increases supply chain costs, may introduce inaccuracies in product information, and may prohibit brand recognition.
- Multiple Partner Identification Numbers Assigned – Each distributor assigns an internal partner identification number for Good Sauces and each of the Best Burgers units that it serves.
- Inability to Aggregate Reported Sales Data Across the Supply Chain – Since the Best Burger units are served by both BFS and QFS, there are different identification numbers for Good Soya sauce and Best Burger units, which complicates aggregated sales reporting.
- Inability to Provide Category Reporting Across the Supply Chain – Category reporting is complicated due to the different product categorization completed by Good Sauces, BFS, and QFS.
- Inability for Supply Chain Partners to Understand Contract Compliance Across the Supply Chain – Proof of performance reporting against the Good Soya contracts across both distributors is made more complicated and leads to frustration and disputes between Best Burgers, BFS, QFS, and Good Sauces.

Clearly, the challenges created by unsynchronized data can be mitigated if the data were cleansed, synchronized, and appropriately disseminated at the source.

As a further true-life example, Figure 4 illustrates a scenario where one hospital is serviced by a handful of manufacturer, distributor, and group purchasing organizations. Each supplier identifies the hospital differently. And we notice that whether using language or numbers, it can start to get confusing – and problematic – because the hospital needs to keep track of its identity for each supplier.

Trade Party Identification for 1 Hospital

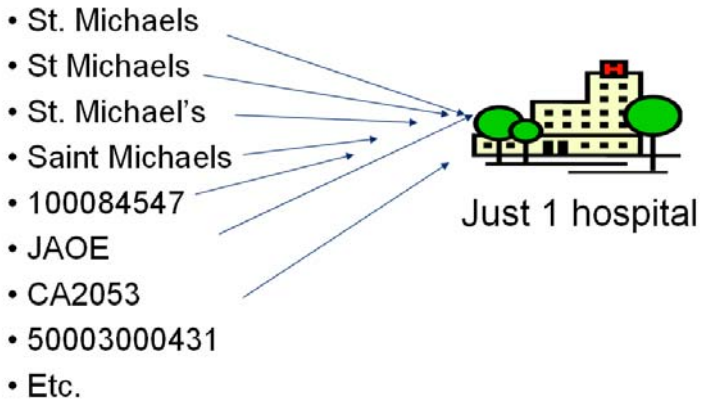


Figure 4

And, when we have relationships between the various service providers for this one hospital, the number of possible 'identities' expands, as shown in Figure 5.

Identifying Customers

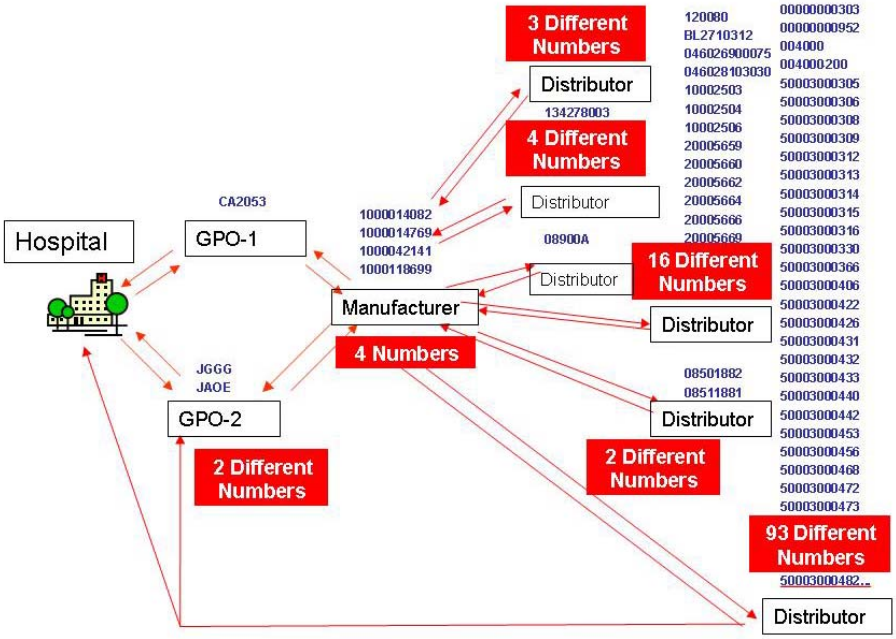


Figure 5

The 8 trade parties have a combined 93 unique identifiers for 1 hospital.

Data synchronization is about a trade party, the trade party's product, and the trade relationships. Whether you are a supplier (manufacturer or distributor) or operator, it is one of the tools you will use for your business, and represents an investment in your business.

Implementing data synchronization requires commitment and coordination from the information technology and business support areas – such as vendor relations, product management, marketing, purchasing, sales, etc. It is an ongoing, repetitive process. To get started in data synchronization:

For products and services:

- Look at your product database and products, and determine if GTINs have been assigned, and assigned correctly, based on the GS1 General Specifications document.
- Look at the attribute/descriptive information about your products, and determine if the information meets data synchronization requirements based on data synchronization business requirements documentation.

For trading partner relationships:

- Look at your vendor/trading partner database and determine if you have current information, including the GLNs.
- Develop plans to update your master data and vendor files to meet data synchronization requirements.
- Determine the enhancements needed to internal policies and procedures to ensure future compliance with data synchronization requirements.
- Become familiar with and select the services of a certified data pool, which will provide you access to the GS1 Global Registry. As part of their services, the data pool will advise you about on-boarding, implementation, and any legal requirements.
- Determine what additional services you might need from a certified solution partner, who can assist you with internal processes as well as provide guidance about moving data to/from the data pool.

The data synchronization process requires resources and initiative – but should be viewed from a company's longer-term, strategic perspective. The efforts expended for this initiative can put a business on a more solid footing by improving the quantity and quality of information available for use internally, as well as among the trading parties. Working in an ever changing business climate, this enhanced information may also facilitate navigating through your competitive environment.

Competition and industry consolidation are changing the foodservice supply chain landscape. There is not as much time to 'sit on the sidelines' as there used to be. Newer technologies, enhanced business processes and more rapid adoption are the hallmark of the 21st century.

Introducing GTINs, GLNs, GPC, and data synchronization allows the enterprise and the supply chain to take advantage of electronic processes and technologies.

- Having cleansed your trade item and trading partner data, it is then possible to join the GDSN, which allows visibility to anyone in the network to your products and services; Registering a product or service with its GPC identifier means that it will become possible to:
    - Search or source for a product by a standardized classification scheme
    - Capture information about the sales of product in a standardized format
    - Track and analyze market data for a product category
- 'Clean data' further enhances the ability to address product safety and recall issues
- It is only possible to begin an Electronic Product Code™/ Radio Frequency Identification(EPC/RFID) program with accurate, standardized data.

Additionally,

- GTINs and GLNs may be used in bar codes for product identification.
- The GDSN enables item price synchronization between the trade parties.
- Serial Shipping Container Codes (SSCCs) bar codes may be used on product for logistic tracking.
- GTINs, GLNs and SSCCs may also be conveyed in radio frequency identification structures such as EPC tags.
- Data synchronization sets the stage for additional collaborative commerce processes. Accurate product information removes errors from the order, deliver, invoice, and payment processes. It enables other processes, such as sales and promotion planning, Collaborative Planning, Forecasting and Replenishment (CPFR®), and tracking and tracing functions.

Another area that can benefit from the implementation of standards is contract and rebate management. The intricacies of establishing a contract can be simplified by making use of the GS1 System standards.

Several leading foodservice distributors are addressing data synchronization through internally developed systems that interface with various data pools. The full success of data synchronization for foodservice, however, will depend heavily on how quickly it is adopted by foodservice trade parties.

It is critical to the foodservice industry that it does not let this opportunity slip away. A collaborative initiative is needed to create a single standard that benefits the industry supply chain as a whole, and timing is of the essence – those companies that do not get involved soon may find themselves at a competitive disadvantage.

The next few pages provide examples of how different companies approached data synchronization. Regardless of the differences of approach, you will notice that there is much commonality in their reasons for going forward with this initiative.

A Leading US Dairy Manufacturer

PROFILE: A national food and agricultural cooperative with 1,300 members. It is a leading marketer of dairy foods products, while supporting businesses in feed, seed, and agronomy. It is also the nation's number-one marketer of branded butter and deli cheese.

Their data synchronization initiative began in 2002 within their Dairy Foods Division when several key retail/deli customers requested they get involved. Identified benefits included:

- Reduction in invoice discrepancies
- Improved quality of purchase orders
- Improved speed to retail shelves
- Increased retail point-of-sale accuracy
- Reduced paper administration and data keying efforts
- Reduced communication time.

The objectives included a focus on:

- Supporting their customers' electronic commerce initiatives involving data synchronization
- Becoming an active participant in the development of the evolving standards
- Maximizing staff efficiency
- Leveraging existing company technology
- Driving internal business practice/policy changes
- Enhancing their supplier status as an active participant in global data synchronization.

With senior management sponsorship, the company developed a project plan, identified key internal players, established relationships with key vendors, and then began the slow and steady job of implementing the plan. The job was complex since a product catalog did not exist and product information was scattered among numerous systems.

There are several other business units in the Dairy Foods Division. Due to the lack of consistent data information, the next phase will incorporate foodservice and retail/deli business units into the data synchronization strategy. This will allow them to ensure data integrity among those trade parties.

The company's initial efforts have generated positive results. Customers' requests have been met and product data is now published accurately and timely. Additionally, purchase order processing time and rework has been reduced. The company's goal and vision is to reduce out-of-stocks and on-hand inventory, and increase speed-to-shelf for new items. Other potential benefits include reducing logistics costs and sales force time requirements for new item introductions.

A Leading Manufacturer of Chicken, Beef and Pork Prepared Foods

PROFILE: A leading manufacturer of chicken, beef, and pork prepared foods – marketing and selling its products to national and regional grocery retailers, wholesalers, distributors, club and warehouse stores, the military, industrial companies, chain restaurants, schools, convenience stores, hospitals, and other vendors – in the United States, Canada, Mexico, and many other countries.

While this company's retail customers have adopted the GDSN model for data synchronization, their foodservice trading partners were not consistent in their approach to align product and trade party information. Much of the current activity is focused around providing product cross-reference information for the on-boarding process to support trade with foodservice customers through third-party exchanges and marketplaces.

Within the current business environment, there have not been agreed-upon process requirements relating to the sharing of item and party information between trading partners. In an industry with suppliers, distributors, and operators performing various roles, the lack of consistent information has been problematic and has resulted in inefficiencies and added costs for error resolution.

EDI transactions are sometimes used to communicate item information, but this communication is not collaborative and does not necessarily result in the alignment of the information between the trading parties' internal systems.

This leading manufacturer of meat and poultry has implemented data synchronization processes internally and is publishing the item data to many of its retail customers. It is an active participant with the mpXML (Meat & Poultry XML) Committee, which has been developing requirements for variable weight products and defining best practice implementations for their meat and poultry industry players. An area that needed special attention was product measurement dimensions, since many products are 'natural' in shape and were not adequately handled by current standards.

Data synchronization, as a business process, required senior management endorsement. It was recognized that this initiative would require a cross-functional team since it impacted numerous areas of the organization.

- Members were selected from sales, marketing, labeling, purchasing, customer service and information systems departments
- The business areas were educated about data synchronization
- Teams were created to review and correct product data
- New business processes were developed and implemented to facilitate data synchronization
- 'Key' business owners were identified to support the new processes, both short and long term.

Recognizing the positive impact that data synchronization holds, this company remains an active member within the standards development process.

A Leading Services & Technology Solutions Provider

PROFILE: A leading services and technology solutions provider to the foodservice industry since 1986, its efforts focus on improving data integrity for their clients and trading partners through data synchronization. The company focuses on supporting the foodservice supply chain through services and products, such as contract and rebate management software that integrates manufacturer, distributor, and operator business informational requirements.

Contract and rebate management is supported by an integrated suite of software programs for contract development and trading partner communication. Trading partners may choose to implement the entire solution package or only certain segments. To enable this integration, data synchronization is at the forefront of the solution.

Key drivers for implementing data synchronization result from benefits to streamline contract data, reduce costs, and remove inefficiencies from the process. From a contract and rebate management perspective, such drivers will:

- Provide a consistent data flow throughout the entire contract process
- Support party & item standards adopted by clients and trading partners
- Reduce inefficiencies by creating a paperless environment
- Reduce deductions through improved contract interpretation, more frequent claims submissions, and faster settlement

The use of electronic data improves the process flow for all parties through creation, approval, communication, retrieval, and retention of the contract. When a consistent contract data flow is in place, trade parties are appropriately notified of the negotiated and agreed upon terms of the contract.

Varying technology capabilities currently require trade parties to perform multiple data translations for business integration. Currently, company databases must store and maintain relationships for each party's location to an internal ID. The same is true for a trade item since it can have different internal references for each distributor and operator party. Adoption of the GTIN and GLN would improve contract accuracy.

Deductions continue to be a trading partner pain point. By having better, standardized data and processes, the frequency of deductions could be reduced, allowing for more productive initiatives to be addressed. This includes the introduction of electronic transactions for billback.

Data synchronization processes set the stage for improved information flows amongst the foodservice trade parties.

A Leading Supply Chain Solutions Provider

PROFILE: A leader in on-demand supply chain relationship management solutions for the foodservice industry bringing distributors, suppliers, brokers, and operators on-line for maximum supply chain integration and efficiency. Using its technology platform, the foodservice industry is offered information management and data synchronization solutions.

Using currently available data synchronization products, supply chain trading partners can reap the benefits of more efficient product information management and data synchronization by:

- Establishing a single source of product information for the trading community
- Enabling strategic analysis of processes through business intelligence applications
- Enabling low cost integration with other trading partners through the GDSN

An $11B global manufacturer deployed the synchronization solution to address the fragmented product data it stores throughout the enterprise. By doing so, the customer was able to:

- Redeploy more than 50 people within the company performing redundant tasks, to realize a savings of $15M over five years
- Remove duplicate and inaccurate product information
- Centralize all product information
- Organize product attributes from disparate sources;
- Improve product pricing information
- Speed new product introduction
- Efficiently manage the millions of lines of product information and attributes
- Eliminate cost, duplication and complexity from the process for managing product information

Data synchronization is important to foodservice, as it is only with consistent data throughout the supply chain that an enterprise and enterprise applications are able to be optimized.

As the foodservice industry faces the challenges of standardizing product information and publishing to a GDSN-compliant data pool, appropriate products and experience are necessary to meet those challenges. In addition, other solutions are available to the foodservice industry for other complex applications such as contract and rebate management, reporting and analytics, and RFID. By leveraging clean product information and powerful synchronization tools, we can eliminate errors, discrepancies, inefficiencies, and excess supply chain costs.

bar code	A precise arrangement of parallel lines (bars) and spaces that vary in width to represent data.
Business Message Standard	A document containing global voluntary standards for the exchange of electronic business documents using Extensible Markup Language (XML) within the GS1 System. These documents should be used in conjunction with GS1 XML Schemas.
Collaborative Commerce	The processes, technologies, and supporting standards that allow continuous and automated exchange of information between trading partners. Describes how businesses communicate with one another to drive down the cost of the supply chain.
data pool	An entity that provides its customers data synchronization services and a single point of entry to the Global Data Synchronization Network (GDSN). Data pools must be certified per GS1 System standards to operate within the GDSN. Data pools interoperate with the GS1 Global Registry™ and each other. Example: 1SYNC® Data Pool.
data synchronization	Extends data alignment by introducing a 'life cycle maintenance' feature that automates continuous delivery of compliant item updates to recipients who had previously synchronized on published data.
Electronic Data Interchange (EDI)	The computer-to-computer exchange of structured information, by agreed message standards, from one computer application to another by electronic means and with a minimum of human intervention.
Efficient Foodservice Response (EFR)	An industry initiative aimed at reducing inefficiencies in the foodservice supply chain.
Electronic Product Code™ (EPC)	An identification scheme for universally identifying physical objects via RFID tags and other means. Standardized EPC data consists of among other partitions of data, an EPC Manager Number, an object class identification, a filter value, and a serial number used to uniquely identify the instance of the object.
Extensible Markup Language (XML)	Extensible Markup Language (XML) is designed to improve the functionality of the Web by providing more flexible and adaptable information identification. It is called extensible because it is not a fixed format like Hypertext Markup Language (a single, predefined markup language). Instead, XML is actually a metalanguage (a language for describing other languages) that allows individuals to customize markup languages for limitless different types of documents. XML can do this because it is written in Standard Generalized Markup Language (SGML), the international standard metalanguage for text markup systems.
Global Data Synchronization Network (GDSN)	The GS1 Global Registry and a network of interoperable, certified data pools that enable data synchronization per GS1 System standards.

Global Location Number (GLN) The globally unique GS1 System identification number for legal entities, functional entities, and physical locations. The Global Location Number is 13 digits, which comprise a GS1 Company Prefix, Location Reference, and Check Digit. Supply side trading partner locations generally include corporate headquarters, regional offices, warehouses, plants, and distribution centers. Demand side trading partner locations generally include corporate headquarters, divisional offices, stores, and distribution centers.

Global Trade Item Number® (GTIN®) The globally unique GS1 System identification number for products and services. A Global Trade Item Number may be 8, 12, 13, or 14 digits in length, represented as GTIN-8, GTIN-12, GTIN-13, and GTIN-14 respectively.

GS1 GS1, based in Brussels, Belgium, is an organization of GS1 Member Organizations that manages the GS1 System and Global Standards Management Process (GSMP).

GS1 Global Registry The global directory of the Global Data Synchronization Network (GDSN) for the registration of items and parties that validates registered data and ensures the uniqueness of items and parties based on their Global Trade Item Numbers® (GTINs®) and Global Location Numbers (GLNs). Basic item and party information is stored in the Registry and a pointer is provided to the appropriate Data Pool where more information about a specific item or party can be found. The Registry also facilitates the subscription process between retailers and suppliers.

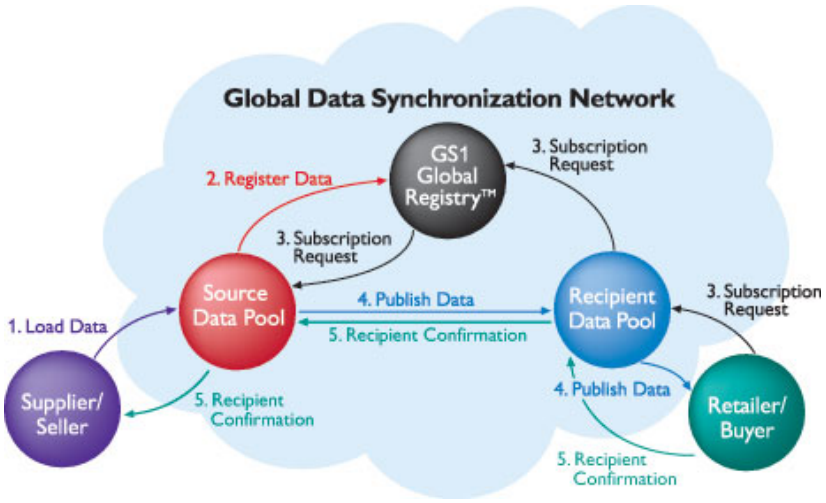
GS1 System The GS1 System standardizes identification numbers, data carriers, Electronic Data Interchange (EDI) transaction sets, Extensible Markup Language (XML) Schemas, and other supply chain solutions for more efficient business. GS1, through the Global Standards Management Process (GSMP), manages the GS1 System to maintain the most implemented standards in the world.

GS1 US Formerly the Uniform Code Council, Inc.® (UCC®). GS1 US™ is a not-for-profit organization dedicated to the adoption and implementation of standards-based, global supply chain solutions. Under its auspices, GS1 US operates three wholly-owned subsidiaries, EPCglobal US™, RosettaNet, and 1SYNC™. GS1 US manages the United Nations Standard Products and Services Code® (UNSPSC®) for the United Nations Development Programme. EPCglobal Inc™ is a joint venture of GS1 US and GS1. GS1 US-based solutions, including business processes, business message standards using XML, EDI transaction sets, and the bar code identification standards of the GS1 System are currently used by more than one million member companies worldwide. GS1 US is headquartered in Lawrenceville, NJ USA. For more information about GS1 US, please visit: www.gs1us.org

IFDA International Foodservice Distributors Association. IFDA's members include broadline, systems, and specialty foodservice distributors that supply food and related products to restaurants, institutions, and other food away from home foodservice operations.

Radio Frequency Identification (RFID)	A data carrier technology that transmits information via signals in the radio frequency portion of the electromagnetic spectrum. A Radio Frequency Identification system consists of an antenna and a transceiver, which read the radio frequency and transfer the information to a processing device, and a transponder, or tag, which is an integrated circuit containing the radio frequency circuitry and information to be transmitted.
Serial Shipping Container Code (SSCC)	The globally unique GS1 System identification number for logistic units. The SSCC is an 18-digit number comprising (from left to right) an Extension digit, GS1 Company Prefix, Serial Reference, and Check Digit.
standard	A specification for hardware, software, or data that is either widely used and accepted (de facto) or is sanctioned by a standards organization (de jure).
Stock Keeping Unit (SKU)	An individual color, flavor, size, or pack of a product that requires a separate identification number to distinguish it from other items (a measure of an item of merchandise for inventory management). In inventory control and identification systems, it represents the smallest unit for which sales and stock records are maintained.

Appendix A



For Information on Data Synchronization and the Global Data Synchronization Network, visit the 1SYNC website at http://www.1sync.org or

http://www.1sync.org/dnn_1sync/WhatisDataSynchronization/tabid/111/Default.aspx

Appendix B

For more information on foodservice and foodservice initiatives, contact:

IFDA (International Food Distributors Association)

- Steve Potter, Senior Vice President, Industry Relations
  703.532.9400 x265
  spotter@ifdaonline.org
  http://www.ifdaonline.org

For more information on GS1 System standards (GTINs, GLNs, bar codes, RFID/EPC), GS1 US foodservice initiatives, data pools, the GDSN, and foodservice Solution Partners, contact:

GS1 US

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