The Impact of Global Data Synchronization on the Beer Industry:
A Guide for Wholesalers & Brewers

Written by IBM Software Group

A Beer Industry Electronic Commerce Coalition Sponsored White Paper

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Executive Summary

The Backdoor Challenge

A wholesaler's truck pulls up to the back door of a retailer. Its delivery includes several brands of beer, as well as a mix of tea, soda and water. Everything is seemingly in order, yet the retailer will not accept the delivery. Why not? They do not have product information for all of the items so they send it back.

Sound improbable? This is a challenge today, and could become more pronounced in the future as retailers increasingly look to global data synchronization (GDS) to manage product information for the wide variety of products on their shelves.

Over the past five years, there has been a lot of hype in the marketplace about GDS. Retailer letters, in particular, have created urgency about GDS. These letters have mandated that suppliers get on board with GDS or else face the risk of being left behind.

What exactly is GDS? What are the benefits to a beer wholesaler or brewer? How should they prepare for its impending arrival? Over time, GDS will become ubiquitous. But what does it mean for wholesalers and brewers today?

These and other key questions have swirled throughout the beer industry for several years as brewers and wholesalers alike try to navigate retailer letters and industry information about GDS.

At its core, GDS is a process by which trading partners throughout the supply chain — be they big or small brewers, beer wholesalers or large retailers in many sales channels (e.g. grocery, drug, convenience) — exchange product information based on a common set of standards. The benefits of this approach are extensive:

- Fewer invoice discrepancies
- Increased speed to market for new items
- Reduced out of stocks
- And, most importantly, no backdoor rejections.

In addition, GDS plays a foundational role in recognizing benefits from another new technology making headlines in the retail and consumer products industries: radio frequency identification (RFID). This initiative is about tracking cases and pallets throughout the supply chain.

By many accounts, GDS adoption is still in its infancy. Significant work has yet to be done by all of the organizations involved in bringing GDS to fruition before the business benefits are recognized. Adoption is, however, increasing. Therefore, understanding the implications of GDS is imperative to the ongoing success of profitable trading relationships.

The sheer size and impact of this industry initiative has one especially helpful historic reference — the advent of the Universal Product Code (UPC) bar code. The same organizations worldwide that promoted the UPC are the same leading consumer products and retail companies behind this supply chain process initiative.

"The Impact of Global Data Synchronization on the Beer Industry: A Guide for Wholesalers & Brewers" is intended to provide the insight and direction your organization needs to understand GDS and the actions recommended to keep pace with its evolution.

Line of business and information technology professionals alike will benefit from the explanations and suggestions that follow. With a common language and understanding of how GDS will impact the beer industry, wholesalers and brewers alike can make progress towards this significant eCommerce initiative.

GDS: A Guide for Wholesalers & Brewers

At the end of the day, brewers and beer wholesalers are in business to sell beer. To be successful in this effort, retailers and consumers are the two constituents that need to be excited about beer. Part of that excitement is keeping the shelves full of a variety of beer at the right place, at the right time and at the right price. All three of these important initiatives are affected by GDS.

Many wholesalers and brewers think, "We do this today!" To many, there is not an apparent need to change the dynamics of how the companies in the beer supply chain interact. What does GDS have to do with these organizations? Why do they have to get involved in yet one more way to tell customers about their products?

What is driving GDS?
The backdoor challenge described in the Executive Summary is a scenario that probably hits close to home for wholesalers and brewers alike. Rejection at the back door is expensive on many fronts: lowered customer satisfaction, increased risk of out-of-stocks and additional overhead to re-deliver the load, just to name a few. However, developing new ways to communicate about products with retailers to drive efficiencies throughout the supply chain is not the only driver of GDS. Individual consumers have a lot to do with the equation as well.

In the marketplace, there are changes afoot among everyday consumers — you, your spouse, your children, your parents, your neighbors — that are influencing the evolution of GDS more than you might realize. At the heart of this change is the increasing demand for new products and more information about those products.

For example, gone are the simple days of selecting a pack of Oreo® cookies. Several years ago, they only came in one or two sizes and the consum-

> **"The trend is that the United States is increasingly an information economy… technology [is] becoming inextricably linked with corporate business processes like selling, shipping, and servicing..."**
>
> *- "State of IT,"
> Forrester Report,
> July 15, 2005*

er's decision was limited to which size was better suited to a family's needs for the week ahead. Today, the decision is more complex. Oreo® cookies can be purchased in any one of a number of package sizes, flavors and seasonal varieties.

Not only is there a growing consumer appetite for more product variety, consumers are also demanding an increasing amount of information about products. Questions such as: how much trans fat is in a product, does it contain nuts, is it gluten free and how many carbohydrates does it contain are commonplace among consumers today.

What does a consumer's perspective have to do with the need for GDS?
As retailers and suppliers increasingly respond to customer demands and the increasing need for supply chain efficiencies, there is a higher premium placed on the ability to exchange reliable, accurate and timely information about these products effectively and efficiently.

The answer to this challenge by the retail and consumer products industries has been to develop a set of standards through which they can more reliably communicate information about their products. This initiative, like others, has gone through the early stage name game. The industry has settled on GDS (previously referred to as data alignment, UCCnet and data sync, for example). GDS is an active initiative for companies spanning North America, Europe and Latin America, Asia will increasingly become a part of the GDS landscape in the years ahead.

What is the vision of GDS?
In 2000, the world's largest retailers and suppliers came together to establish the new process for communicating critical business information with each other called GDS.

GDS represents the next evolution of a way to exchange key business information about products between trading partners including retailers, suppliers, distributors and wholesalers. In the 1980s and 1990s many retailers attempted to implement technologies to accommodate electronic data exchange. Unfortunately, most of these efforts never scaled because they were proprietary to one retailer or one technology partner.

> ❝**Consumers are demanding new products faster; we have to work with our suppliers to expedite the data exchange regarding new products.**❞
>
> *Retailer*

By establishing a set of standards accessible to all trading partners and sales channels, the vision of GDS is to accelerate and improve the ability for all trading partners to improve their supply chain efficiency and, ultimately, better serve their customers. To beer wholesalers and brewers, this could be a boon in the future if all sales channels (e.g. grocery, drug, convenience, mass merchants) leverage GDS — in essence having one standard format and process to communicate product information to their respective retailers.

It is worth noting that ultimately there is very little new information that will be exchanged through GDS. Instead, GDS represents a consolidated, uniform way to exchange product information among trading partners.

What is the reality of GDS adoption today?

Today, the process of GDS is well defined. The organizations involved in facilitating GDS have been established, and data has begun to be exchanged between retailers and suppliers. Retailers have sent letters directing their supplier communities to get involved, and companies of all sizes have started determining how GDS will impact them.

However, adoption of GDS is far from ubiquitous. There are many categories of products for which standards have not yet been developed. Larger retailers are still determining how to utilize product information they receive, and most medium and small retailers have yet to embark on their own initiatives.

As of August 2005, about 360,000 products had been registered for synchronization according to GDSN Inc., and six to eight retailers are engaged in subscribing to this data. However, the upward trend indicates that more than 30 retailers in the U.S. alone have plans to adopt GDS into their supply chain process and it is estimated that by year-end, 750,000 products will be registered for synchronization.

Just because GDS has not yet permeated all retailers does not mean it is not impacting beer wholesalers and brewers today. A brief explanation of how GDS actually works will provide some important context for what needs to be done to prepare for GDS by brewers and wholesalers.

How does GDS work?

It is helpful to turn to a completely different industry for a moment to understand the principles that drive the design of GDS. One relevant com-
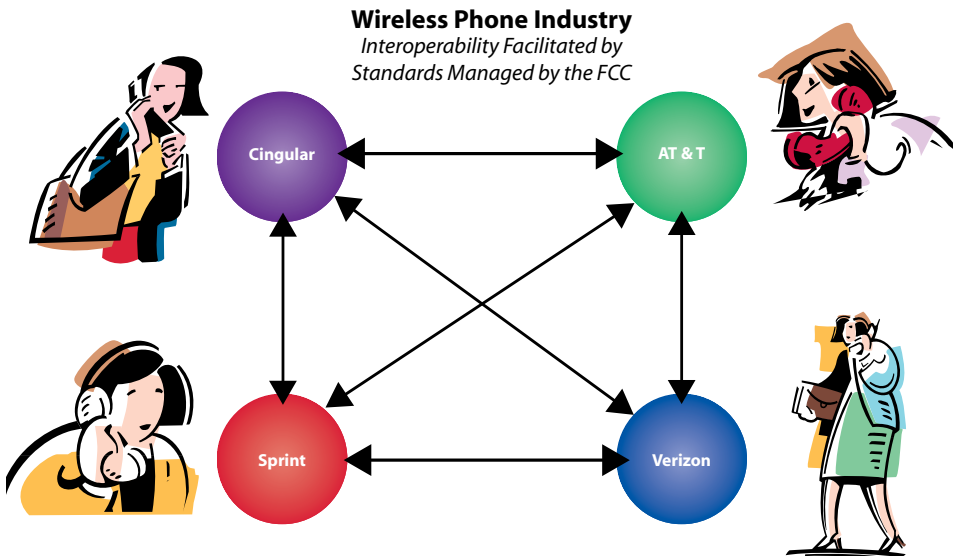
"I rushed to figure out our GDS strategy when I received my first retailer letter, convinced that I was the last organization to get on board. As it turns out, I was among the first..."

Wholesaler

Wireless Phone Industry
Interoperability Facilitated by Standards Managed by the FCC

Cingular — AT & T — Sprint — Verizon

> **"The 90s highlighted that electronic data exchange could streamline manual processes, but it also highlighted that different formats and standards across retailers and sales channels could derail those efficiencies. The current decade is focused on eliminating the different formats and producing standards that all can leverage, across all retailers and sales channels."**
>
> *Brewer*

parison can be found in the wireless phone industry.

It does not matter if a person uses Cingular, Sprint or Verizon to place a cell phone call, because regardless of the service provider, they know the call will go through. The phone companies communicate based on an agreed upon set of standards to facilitate their respective customers' ability to talk with one another. These standards are administered by the Federal Communications Commission (FCC). The standards that facilitate the calls are never exposed directly to the customer, yet customers never doubt that the communication will be made.

Similar principles drive GDS. Consumer goods companies will send — or publish — their product information, based on standards, to a data pool. Retailers, on the other hand, will request — or subscribe — to either the same data pool or an alternative data pool to receive the product information. These data pools ensure that the information can be exchanged between the trading partners because they will communicate using the same set of standards.
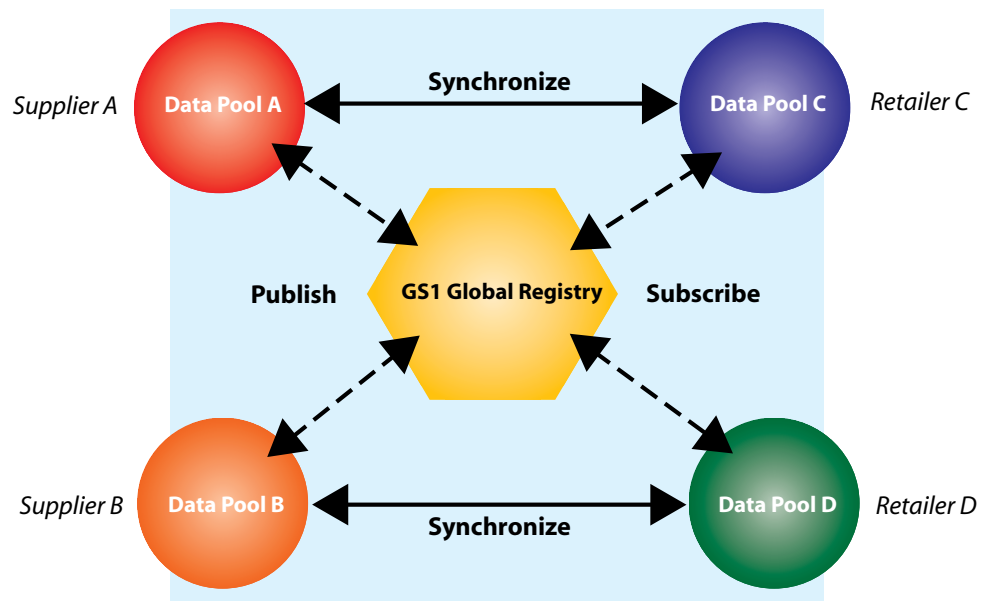
The nuts and bolts of the Global Data Synchronization Network (GDSN)
As brewers and wholesalers begin work on GDS initiatives, it is critical to understand some of the fundamental players and dynamics that drive this process.

The GDSN is the network of organizations that facilitate the exchange of product information between trading partners based on standards. In the wireless phone analogy above, the network would include mobile phone handset manufacturers, cell phone network service providers, the FCC and

Global Data Synchronization Network (GDSN)
*Interoperability Facilitated by
Standards Created by the GS1*

Supplier A — Data Pool A — **Synchronize** — Data Pool C — Retailer C

Publish — GS1 Global Registry — **Subscribe**

Supplier B — Data Pool B — **Synchronize** — Data Pool D — Retailer D

the standards that define how the calls are routed. Everyone has to follow set standards for the "network" to work properly. This is exactly the goal of the GDSN.

In the GDSN, consumer goods companies publish product information to data pools and retailers subscribe to this product information from their data pool. Simply put, data pools can be viewed as a "router" of product information on behalf of a consumer goods company. Conversely, they can be viewed as an "aggregator" of data for the retailer.

The GS1 Global Registry plays a very important role in the GDSN. Its main purpose is to facilitate interoperability between multiple data pools, much like the FCC aids the interoperability of cell phone calls based on standards described in the example above. It is because of this interoperability feature of the GDSN that suppliers and retailers may choose any GDSN-certified data pool and still be able to communicate with their trading partners.

The standards that facilitate this interoperability are another critical component of the GDSN. The standards are developed through a committee process called the Global Standards Management Process (GSMP). Retailers and consumer goods companies from around the world are involved in the GSMP to ensure the standards that are developed meet all trading party requirements.

When consumer goods companies publish product information, they are submitting a unique Global Trade Identification Number (GTIN) for each layer of product packaging available to a retailer. For example, a separate GTIN would be assigned to a pallet, a case and an individual product item, respectively. A GTIN is a 14-digit number that is usually a representation of a UPC, but some exceptions apply.

GTINs for the Beer Industry
Wholesalers should consult their respective brewers for a list of GTINs for all products you sell. Brewers should consult GS1 US http://www. ean-int.org/gtinrules/ *for specific instructions on how to construct the GTINs.*

What type of information is synchronized through the GDSN?
Today, a wide range of product information can be exchanged via the GDSN. This typically includes product attributes that do not change frequently such as product descriptions, dimensions and ingredients.

As previously mentioned, the GDSN is not intended to drive the creation of new information to provide to retailers. Instead, the vision is to ultimately replace the myriad of ways currently used to convey this infor-

Examples of GDS Attribute Owners

GDSN supports today	GDSN will support in future
Brewer Supplied Data	**Wholesaler Supplied Data**
Description	Front Line Price
Product Description	Promoted Price
UPC	Start Date
GTIN	End Date
Dimensions	Product assignment to
Product assignment to	retailer
wholesaler	

mation to retailers, such as paper forms, faxes, spreadsheets, email and retailer portals.

What is the relationship between GDS and price and price promotion information?

Synchronizing price and price promotion information represents the "holy grail" of GDS value for many organizations. Once product information and the relevant pricing information can be exchanged between trading partners, the return on investment of GDS is likely to increase substantially.

Today, however, price synchronization is not yet part of the standards that govern the GDSN. There is substantial work underway to look at how this will be managed within the parameters of the GDSN, given the inherent requirement for security and confidentiality with regard to this business information.

It is important to note that the intent behind synchronizing price between trading partners in the beer industry will be focused on how beer wholesalers and retailers exchange price and price promotion data, the same content they exchange today in a variety of ways. How a brewer and beer wholesaler communicate their price information will likely continue as it does today and for the foreseeable future, hence GDS will not play a part in that communication process.

Who is responsible for the GTIN and its attributes?

Since brewers manufacturer beer and inevitably own the responsibility for the product attributes (e.g. brand name, product description, dimensions) brewers will own the responsibility to create and maintain GTINs.

What is the connection between GDS and RFID?

Many of the same retailers who have sent letters regarding GDS are now promoting the next wave of technological advancement: Radio Frequency Identification (RFID). The RFID phenomenon will place tiny electronic chips on pallets that can track the movement of the pallet throughout the supply chain, from a manufacturer all the way to the store shelf. Ultimately, the RFID chip will be adhered to the individual selling unit.

There is a strong interdependency between the GDSN and the network that facilitates RFID. Both initiatives rely on a GTIN to identify, describe, and track a specific unit of goods being transported through the supply chain. Over time, as adoption of these networks increases, the specific value derived from the relationship between the two networks will yield more value. The benefits are relatively far away for the typical wholesaler and brewer due to the slow adoption rate.

What is unique about GDS in the beer industry?

Now that the groundwork for GDSN has been established, it is important to understand how it uniquely impacts the beer industry. The combination of a direct-store-delivery (DSD) and regulated, three-tier model has unique implications on how GDSN will be adopted by brewers and wholesalers.

As the standards underlying the GDSN have been developed, they have

> **"Accurate, precise and timely execution of GDS correlates to the integrity of one's brand management commitment."**
>
> *Brewer*

been initially geared towards the most basic supplier to distribution center (DC) to retailer store model. Standards requirements that specifically impact the DSD model have started being developed. However, they are not yet at the same level of completeness or adoption as most standard DC to retailer products.

The most notable distinction in DSD for GDSN is the relationship between who owns the GTIN and the associated attributes, versus who is contacted by retailers to get engaged in GDS activities. Brewers are responsible for the GTIN, yet it is usually wholesalers who are contacted by retailers to get involved in GDS initiatives. This is because wholesalers are the retailer's vendor of record. Through GDSN, some brewers have published data to a few retailers for their products. However, the retailers are having a difficult time matching the data from the brewers to the products in their systems because the brewers are not the vendor on record.

The unique relationship between the beer industry and the GDSN is further distinguished by the variability in state laws regulating how beer must be transacted between wholesalers and retailers. These nuances and special circumstances are key examples of ways that the GDSN must evolve to fully accommodate the exchange of information regarding regulated products including beer. The standards to accommodate this segment of the industry are currently under development.

What is the role of the retailer as the beer industry moves towards GDS adoption?
Retailers are arguably the force that is driving GDS. But how are retailers actually implementing their GDS strategies? To what extent are retailers really using the data provided by their trading partners through the GDSN?

The shift to using the GDSN for product information is one that the world's largest retailers have endorsed and are moving towards. From their vantage point, this migration is about changing the source of their product information for thousands of products. It will not happen overnight. In the meantime, many of the world's medium and small retailers are still watching their larger counterparts, trying to determine when and how to implement a GDS strategy of their own.

The trend to date is that retailers have started the process of receiving data for a small number of categories. For example, a retailer might focus on collecting information for cereals, beginning with information from the largest cereal manufacturers. Developing a reliable, successful approach to one category will provide significant insight for retailers to extend adoption to other product categories.

This "crawl, walk, run" approach directly transfers into the types of products retailers have set their sights on first, and how they are likely to prioritize additional categories of products as their ability to use this information comes up to speed. What is typically happening in the marketplace today is that retailers are starting with an eye towards their warehouse products. It is expected that they will then turn to the increasingly complex models of DSD, and finally to regulated DSD. This is where

brewers and wholesalers come in.

When will GDS REALLY impact the beer industry?
While the realization of many benefits of GDS are still in the future for brewers and wholesalers, and even though many retailers are not yet ready to accept beer product information through the GDSN, this does not mean beer wholesalers and brewers should relegate their GDS efforts to the back burner. GDS is knocking on the door. Many larger brewers have already begun assigning GTINs to their products, and some have begun publishing the GTINs and associated attributes through a certified GDSN data pool.

The recommendations in the boxes that follow provide specific guidelines for wholesalers and brewers, respectively, about the specific value of GDS and the respective next steps that should be considered for an effective GDS strategy.

Recommendations for Wholesalers

What are the benefits of GDS to a beer wholesaler?
The move towards global standards adoption for synchronizing information with retailers is similar to adoption of UPCs and their subsequent proliferation. GDS will grow to reach the same level of acceptance in the coming years.

As GDS becomes more pervasive, there will be several advantages to wholesalers. Consistent product information exchanged among trading partners will bring a much higher level of accuracy regarding products sold to retailers. For example, deliveries of products covering multiple brand owners will not be turned away because all products will be recognized by the retailer.

How does this relate to other systems currently used with brewers and retailers?
The long-term vision of the GDSN is to provide a comprehensive clearing house of information between trading partners. However, the reality of being able to rely solely on this for all forms of information exchange is well into the future.

In the meantime, wholesalers will need to continue using existing methods of communicating product data and price information with trading partners. While one day GDS hopes to eliminate the need for paper forms and fax transmissions regarding new item introductions and product information updates, that day is not yet upon us.

Does GDS impact a wholesaler's route accounting software (RAS) system and other technology infrastructure?
Over time, RAS systems and other technology infrastructure will need to accommodate specific attributes relevant to the GDSN. The most notable example is including a GTIN in existing systems. Many RAS vendors have already incorporated fields for this identifier in their current systems, and others are moving in that direction.
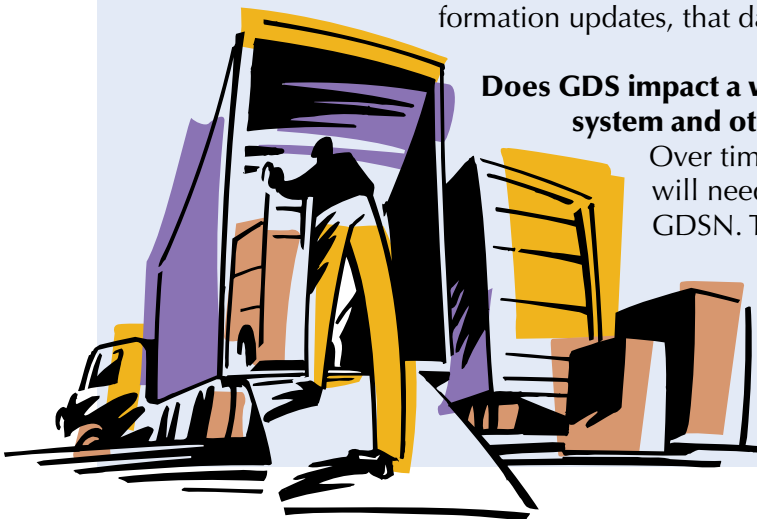
What should wholesalers do next?

It is often said in the world of sports that a good defense relies on a solid offense. Never has this been more true than in the world of eCommerce. By understanding the changing landscape and knowing some key facts (e.g. your responsibilities, the impact to the overall supply chain, your retailer's back door operations) you will be viewed as a value added supplier. The following are some recommendations to help you progress as GDS becomes a reality:

- **Get prepared.** For many wholesalers, this will largely take place in discussions with your RAS vendor and/or brewers. Here are key questions to ask:
  - ° Does my RAS have a GTIN attribute in my product master database? There should be a field that correlates to each UPC code in your RAS. If not, ask your RAS when it will be available.
  - ° What version of the RAS has this ability? Is my company running that version? If not, when will the migration take place?
  - ° Has my company received GTINs from all my suppliers for all my stock keeping units (SKUs) loaded? If not when and how will I receive them? Going forward, GTIN should be a mandatory attribute for new SKUs – just like UPCs are mandatory/required.
  - ° Does the GTIN attribute get printed on the wholesaler invoice or on the information exchanged with a retailer?

- **Do not take on a retailer letter alone.** Many retailers have sent letters mandating GDS adoption over the past several years and more are sure to come. Beer wholesalers are listed as the vendors to these retailers — not the brand owners. Here are the key actions wholesalers should take when a GDS letter (or any eCommerce related letter, including RFID) arrives:
  - ° Contact one of your brewers and get their perspective. They may have already seen the letter and probably discussed it with the retailer. They should be able to fill in the blanks of next steps.
  - ° Contact the Beer Industry Electronic Commerce Coalition (BIECC) and/or your state beer wholesaler association to see if there is any portion of the letter that is in conflict with local laws governing eCommerce and/or retailer services. If something is in conflict, fear not — in most instances no malice was intended, it is simply a retailer initiative that was sent to a large supplier base (mostly non-licensed beverage vendors). See the next point and discuss the issue with the retailer.
  - ° Contact the retailer representative to discuss their GDS knowledge and perspective. Sometimes a letter inadvertently gets sent to a beer wholesaler when the program is not meant for DSD or possibly beer DSD in the near term.

Recommendations for Brewers

What are the benefits of GDS to a brewer?
As is true for wholesalers, GDS is on its way and will, in time, impact brewers. Ultimately, this initiative will not be an optional decision for how brewers do business with retailers and wholesalers, but instead will become the way that business is done. In many ways, this evolution is similar to adoption of UPCs and their proliferation. GDS will grow in presence to reach the same level of acceptance in the coming years.

As GDS takes hold, the opportunity for brewers is to significantly streamline their ability to interact with retailers and wholesalers. Exchanging consistent, accurate product information is just the beginning of the benefits. Increased ability for effective space planning, and improved supply chain efficiencies are other examples of advantages that will come over time.

Importantly, participating in GDS ensures you are able to continue attracting and working with more retailers as they turn to the GDSN as a primary way of gathering new product information from suppliers. The benefits should extend to brewers of all sizes as this approach eliminates the multiple ways in which they are required to interact with retailers today.

Where should brewers start?
Brewers should be proactive about planning and acting on GDS.

If it has not already been done, brewers should begin assigning GTINs to products. This effort will include not only assigning unique GTINs to each type of product structure (e.g. case, inner pack, consumer unit), it will entail gathering additional product information required by your chosen data pool. This process can take some time, so starting now will help ensure readiness as retailers accelerate their momentum for GDS initiatives.

What happens when a retailer sends a GDS "letter"?
When retailers advise wholesalers they want them to begin engaging in GDS, your phone will begin to ring with questions from wholesalers. Know who in your organization is trained to field these calls, and make sure wholesalers are routed to that team accordingly. Be prepared to advise them on the steps you have taken to date, and how they need to work with you and the retailers to ensure the product information is effectively exchanged.

Concluding Thoughts

The vision of GDS implicitly brings significant benefits to the entire supply chain that extends from suppliers through wholesalers to retailers. Consumers are ultimately the beneficiaries when GDS truly enables more accurate product information and increased reliability that items are available on store shelves when consumers are ready to buy.

Progress is being made towards this vision, but there is much work to be done before all the benefits will be recognized. Continued persistence on the part of suppliers to aggregate and deliver accurate product information is a significant part of this effort. Retailers increasing their use of the data provided by suppliers will be another key factor in building momentum towards widespread adoption.

More Information About GDS

GDS has garnered a significant amount of attention over the past five years. Many leading industry organizations and not-for-profit organizations involved in driving GDS have resources available to provide additional information.

In order to learn more about GDS, visit the following websites to read overviews and White Papers about how they are supporting the evolution of GDS.

GS1: www.ean-int.org

GSMP: www.ean-int.org/global_smp/gsmp_smp.htm

Global Commerce Initiative: www.gci-net.org

Grocery Manufacturers Association: www.gmabrands.com

How to assign GTINs: http://www.ean-int.org/gtinrules/

Glossary

1Sync – A data pool announced in August 2005 representing the merged entity of two former stand-alone data pools, UCCnet and Transora. 1Sync is a subsidiary of GS1 US, the United States member organization of GS1.

Attribute – A piece of information reflecting a characteristic related to an identification number or GTIN (e.g. an expiration date or a product description).

Brand Owner – Entity (party) owning, and in most situations manufacturing, the trade item responsible for base product data.

BIECC (Beer Industry Electronic Commerce Coalition) – The working group of wholesalers, brewers and state association executives whose mission is to maximize the beer industry's role and common interest pertaining to the implementation and utilization of electronic commerce within the three-tier system. The BIECC is managed by the National Beer Wholesalers Association (NBWA).

Data Pool – A repository of data where trading partners can obtain, maintain and exchange information on items and parties in a standard format through electronic means. For data pools that are part of the GDSN, they must be certified by the GDSN Inc. to be authorized to provide these services for the GDSN.

Data Recipient – A data recipient in GDS is typically a retailer. The retailer requests trade item information through the GS1 Global Registry by subscribing to specific items such as items (GTIN), categories (GPC), data sources (GLN) and/or target markets. The data recipient receives any updates to trade items previously published to them and receives this trade item information in any format agreed to with the recipient data pool.

Data Source – The data source is typically a supplier wanting to enter information into the GDSN. The trade information is sent to a source data pool to be registered with the GS1 Global Registry and to be communicated to a data recipient. The data source can send the trade item information in any format agreed to by the source data pool.

DSD (Direct-Store-Delivery) – A system whereby goods are delivered to the buyer's store instead of going

through a warehouse or distribution center.

EAN.UCC – The system of standards used to facilitate interoperability within the GDSN and administered by the GS1. Also referred to as GS1 standards.

GCI (Global Commerce Initiative) – GCI is the unifying force that brings manufacturers, brokers, wholesalers and retailers together on a worldwide parity basis to simplify and enhance global commerce and improve consumer value in the overall retail supply chain. It is a global user group, and its charter is to drive the implementation of EAN.UCC (GS1) standards and best practices http://www.gci-net.org/).

GDS (Global Data Synchronization) – The process of continuous harmonization of information between all trading partners ensures that the master data between your system and your trading partners' systems are the same in all systems. GDS conducted through the GDSN uses the EAN.UCC (GS1) standards.

GDSN (Global Data Synchronization Network) – The GDSN is an internet-based, interconnected network of interoperable data pools and the GS1 Global Registry, that enables companies around the world to exchange standardized and synchronized supply chain data with their trading partners based on EAN.UCC (GS1) standards.

GDSN Inc. – A subsidiary of GS1, GDSN Inc. is responsible for managing the GDSN.

GLN (Global Location Number) – The unique location number that is mandatory within the GDS process to identify data owners/information providers such as distributors, brokers and manufacturers.

GS1 – The international not-for-profit organization that oversees the establishment and administration of many types of eCommerce standards, including those that govern GDS and the GDSN.

GS1 Global Registry™ - A directory for the registration of unique catalogue items and parties for the GDSN. It contains a limited data set certified to be EAN.UCC compliant and acts as a pointer to source data pools where master data is housed.

GS1 Standards – The standards that are established by the GSMP within the guidelines of GS1 to facilitate the objectives of the GDSN. Also referred to as EAN.UCC standards

GS1 US – The United States member organization of GS1, previously known as the Uniform Code Council (UCC), responsible for administering eCommerce standards in the United States. 1Sync is a subsidiary of GS1 US.

GSMP (Global Standard Management Process) – GSMP is the global process established in January 2002 for the development and maintenance of global standards and global implementation guidelines that are part of the GS1 system.

GTIN (Global Trade Identification Number) – A globally unique finished product identifier that is a 14-digit numerical value used to uniquely identify a trade item. A trade item is any trade item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be planned, priced, ordered, delivered and/or invoiced at any point in any supply chain.

Master Data – Within the context of GDS, any data or constructs that are applicable across multiple business transactions. Master data describes each item and party involved in supply chain processes. Each data set is uniquely identified by a GTIN and a GLN. Typically Master Data is static – not transactional. Master Data is exchanged between the trading partners during the data alignment process.

Portal – A Web site used by one trading partner to receive information from multiple trading partners.

Publication – The process of sending product information to a data pool to prepare and issue data for distribution to one or more trading partners.

RAS (Route Accounting Software) System – A category of Independent Software Vendors (ISV) that provide technology for invoicing, pricing of product, sales tracking, order handling and customer reporting.

Registration – Registration is the process that references all items and parties prior to publication by all GDSN certified data pools and on which there is a need to synchronize information. Registering a trade item involves validation by the GS1 Global Registry for product uniqueness. The combination of attributes used to ensure unique records includes GTIN, GLN and target market.

Retailer Portal – The same as a Web site unique to a retailer where suppliers enter product data.

RFID (Radio Frequency Identification) – A new technology providing a way to track items as they move through the supply chain.

SKU (Stock Keeping Unit) – A term for a unique numeric identifier, refers to a specific product in inventory or in a catalog.

Subscription – A subscription is made of any combination of GTIN, GLN, information provider, target market and product classification (at the exception of GTIN and GPC that are mutually exclusive). When a subscription is established, a data recipient sets a profile to receive ongoing updates of the matching data. Subscriptions remain valid until they are deleted. Subscriptions are created by data recipients in their home data pool and sent to the GS1 Global Registry.

Target Market – The target market is a geographical region based upon geographical boundaries sanctioned by the United Nations. In GDSN, the list of the geographical regions is defined by the ISO-3166-code system.

Trade Item – Any item (product or service) upon which there is a need to retrieve pre-defined information that may be priced, ordered or invoiced at any point in any supply chain.

Trading Partners – One or more parties engaged in trade. Relevant to this data sync guide, trading partners are generally retailers, suppliers, brokers, wholesalers or distributors.

Transora – A data pool serving retailers and suppliers. Transora announced the completion of its merger with UCCnet, another data pool, in August 2005. The combined entity is called 1Sync, a subsidiary of GS1 US.

UCCnet – a data pool serving retailers and suppliers and a subsidiary of GS1 US. In August 2005, UCCnet and Transora announced the completion of their merger. The combined entity is called 1Sync and continues to be a subsidiary of GS1 US.

WWRE (Worldwide Retail Exchange) – A data pool serving retailers and suppliers.

Interview Participants

The following organizations were generous with their time and input to develop the "Impact of Global Data Synchronization on the Beer Industry: A Guide for Wholesalers & Brewers."

BREWERS

Anheuser-Busch, Inc.
Coors Brewing
    Company
Miller Brewing Company
Odell Brewing Co.

WHOLESALERS

Andrews Distributing
Coors Distributing Company
Heritage Beverage Company
J.J. Taylor Cos. Inc.
Matesich Distributing Co.
"Mo" Moorman Distributors
Monarch Beverage Co., Inc.
Mt. Hood Beverage
Stein Distributing
United Distributors
W.A. Thompson

SOLUTION PROVIDERS

GBG
Vermont Information
    Processing, Inc.

About the Authors

Edward Licul, IBM Global Data Synchronization Strategy Lead
Edward is focused on delivering GDS consulting and deployment strategies to the world's largest retailers and consumer products companies. He is recognized as an industry expert in GDS and has been a frequent contributor to industry trade journals and white papers. Edward joined IBM as part of the acquisition of Trigo Technologies, where he helped that company's GDS solution and implementations on behalf of its customers. Prior to joining IBM/Trigo, Edward was the director of global standards at Transora, a leading data pool synchronizing data with retailers in 21 countries, where he was a key participant in both the groundbreaking Global Commerce Initiative (GCI) and the Global Standards Management Process (GSMP). Edward's industry experience includes over three years at Coors Brewing Company where he was at the forefront of electronic commerce processes and standards for the consumer products industry. Edward has a Bachelor of Computer Science degree from the University of Windsor, Ontario Canada. Edward resides in Oswego, Illinois with his wife and three children.

Malia Hardin, IBM Global Data Synchronization Marketing Manager
Malia's responsibilities include leading all product marketing activities for IBM's GDS initiatives. In her role, she works with customers and prospects to help define their GDS objectives, as well as manages IBM's partnerships with market-leading data pools, industry organizations such as GCI and GS1, and industry analysts. Prior to joining IBM, Malia worked with emerging eCommerce business models and technology companies in her roles at venture capital and strategic management consulting organizations. Malia has her Masters of Business Administration degree from Duke University's Fuqua School of Business and her Bachelor of Arts degree from Wellesley College. Malia resides in New York with her husband.

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