

What is Global Data Synchronization? 何謂「全球數據同步」?



Global Data Synchronization (GDS) is a global, Internet-based initiative defined by the Global Commerce Initiative. It is a staged process to ensure the compatibility of data between trading partners. It provides a framework for companies to continuously harmonize data attribute values on systems used by various trading partners. As a result, data attributes and values will be the same in all corresponding systems.

This global effort can be achieved by standardizing the master data of item and party information stored by one trading party, and matching it against the corresponding data in the systems of another party. Companies can then establish and maintain consistent, accurate information throughout the communication process, adding value and improving operational efficiency for manufacturers, distributors and retailers along the supply chain.

In order to enable trading partners in different locations to exchange accurate, up-to-date master data in compliance with the GS1 standards, GS1 has launched the Global Data Synchronization Network (GDSN). GDSN comprises two key elements:

- The GS1 Global Registry™ a single electronic directory for registration of unique catalogue items and parties, where all master data is GDSN standard-compliant. It also allows companies to locate source (manufacturer) or recipient (retailer) data pools to conduct data standardization and synchronization on a real-time basis, thereby helping trading partners to manage information and improve collaboration.
- The Certified Data Pools interoperable repositories of data around the world within the GDSN where trading partners can obtain, maintain and exchange product data in the standardized format. Changes in product data can be flagged immediately and all trading partners involved will be notified.

The GS1 HK Data Pool

GDSN is the global network that connects different data pools to the GS1 Global Registry™, which is a global data directory operated by GS1 since 1994. The GS1 HK Data Pool serves as both the GDSN source and recipient data pool in Hong Kong providing a certified platform that interoperates with the GS1 Global Registry™ and all other data pools in the network.

Through this connection, trading partners are able to exchange accurate and up-to-date product information compliant with the GDSN standards, thus reducing out-of-stock situations, increasing speed-to-shelf capabilities and cutting logistics costs.

「全球數據同步」,是由全球商業計劃創立的全球性行動,並以互聯網為基礎,務求令貿易夥伴間的數據能達至彼此兼容。全球數據同步主要提供一套機制,鼓勵供應鏈夥伴之間的系統能持續地進行統一校正貿易數據,從而確保各方系統的數據內容與價值一致。

要實現全球數據同步,便需要每個貿易夥伴以標準格式記錄產品、公司等資料,以便配合其合作夥伴系統內的數據。因此,當一間機構與其生產商、分銷商及零售商等在溝通的過程中,建立及使用共通一致的資料時,便能提升整個供應鏈營運效率。

為使身處不同地區的貿易夥伴能交換最新、最準確的數據,並符合 GS1 標準, GS1 推出了「全球數據同步網絡」(GDSN)。「全球數據同步網絡」由兩個主要部分組成:

- 「GS1全球註冊資料庫」一此乃是單一電子化的資料庫,為個別產品及貿易夥伴的資料執行登記,所有數據均符合 GDSN 標準。企業可確定來源數據池(生產商)或接收數據池(零售商)的位置,進行即時數據標準化與同步化,從而有效地管理資料及提升貿易夥伴的協作關係。
- 認可數據池一此乃是分佈世界各地的互通數據庫, 在全球數據同步網絡中聯繫在一起。貿易夥伴可以標 準數據格式經電子方式索取、整理及交換產品或公司 資料。如需要更改產品數據時,數據池便會作出即時 記錄並通知各參與貿易夥伴。

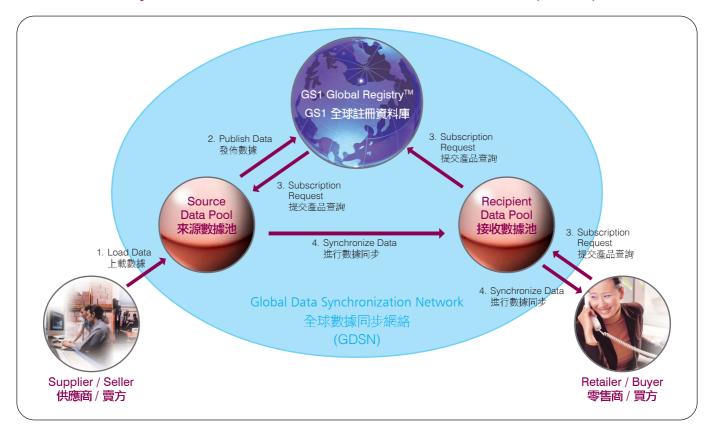
GS1 HK 數據池

全球數據網絡主要將位於各地的數據池,連繫至 GS1 全球註冊資料庫。自 1994年, GS1 已專責管理該全球註冊資料庫。 GS1 HK 數據池扮演著全球數據同步網絡中位於香港的來源及接收數據池的角色,連繫 GS1 全球註冊資料庫,以及網絡中其他數據池。

透過此平台,貿易夥伴間便可交換最準確、最新,並符合 GDSN 標準格式的產品資料,有效減少缺貨情況,加快新貨上架的時間,以及節省物流等方面的開支。



Global Data Synchronization Network 全球數據同步網絡 (GDSN)



Understanding the Benefits

By continuously synchronizing / harmonizing the master data between an organization and its trading partners' systems, GDS offers benefits including:

- Increased speed to market new product information can be received and disseminated quickly, accelerating the product introduction cycle
- Enhanced productivity and improved information flow automatic transfer of information reduces time and expenses required for data entry, communication and other administrative tasks
- Reduced out-of-stock occurrences enhanced communication can facilitate collaborative planning, forecasting and replenishment, as well as reduce PO errors and other receiving issues
- Reduced warehousing and distribution costs accurate product information can improve product movement and handling operations, and fleet utilization can be coordinated better and in a more timely manner.
- Improved in-store shelf and scanning capabilities synchronized data between supplier and retailer helps to avoid shelf information discrepancies and scan errors
- **Reduced inventory** over- and/or under-ordering situations can be eliminated through improved product information accuracy
- Instigate savings in error reconciliation substantial savings in cost and time can be achieved when the number of invoice and PO discrepancies is minimized
- Reduced customer service management effort enhanced data integrity in the information flow of customer orders can reduce manpower, time and costs for service management

「全球數據同步」的效益

隨著貿易夥伴間的系統持續地不斷進行更新、自動調整數據,全球數據同步的確帶來多方面的效益,包括:

- 加快新貨推出市場 零售商能迅速地接收及傳遞產品 資料,不但縮短訂貨時間,亦可加快新貨推出市場的週 期。
- 提升生產力及改善資料傳送一以自動化程式傳遞資料, 可有效節省數據輸入、通訊或其他行政工作的時間及費用。
- 減少缺貨情況 提升通訊能力,有助企業作出協作式 策劃、預測及補給情況,以及減少訂單及交收錯誤等問 題出現。
- **降低倉存及運輸成本** 準確的產品資料,有助提升貨物流及操作過程。運輸、船期等安排亦得以改善。
- 提升產品貨架準確性及資料掃讀能力 供應商與零售商之間的產品數據同步一致,可避免貨架上的資料錯誤,或掃讀資料時出現誤差。
- 減少存貨 提升產品資料準確度能改善過量積存貨品 或過少存貨的情況出現。
- 減少財務協調上所需的時間和金錢 由於發票與訂單出現誤差的情況減少,大大節省時間與金錢。
- **節省客戶服務管理方面的資源** 有效提升客戶訂單數 據完整性,可減省用於客戶服務的人手、時間與金錢。

How to Implement GDS? 如何執行全球數據同步?



GDS is gaining momentum globally with an increasing number of supply chain partners synchronizing their product information on GDS compliant data pools. GS1 is instrumental in offering two different Product Information Management (PIM) solutions to enterprises of all sizes. The **In-house PIM**, which necessitates the integration with internal back-end systems, meets the needs of large corporations who have bulk data transactions and sufficient IT support. The **Web-hosted PIM**, which conducts data synchronization via a web-browser over the Internet, is an ideal data tool for small and medium-sized companies.

越來越多供應鏈夥伴,都關注到全球數據同步的重要性,並開始將其產品數據上載至認可的數據池上。為此,GS1亦為各大小企業提供兩套產品資訊管理(Product Information Management)解決方案。內部產品資訊管理方案(In-house PIM),主要整合公司內部運作系統,適合需要處理大量交易數據,並設有內部資訊科技支援的大規模企業使用。至於網上產品資訊管理方案(web-hosted PIM),則利用瀏覽器在互聯網上進行數據同步,是中小型企業合適的數據處理工具。

STEP 1 第一步

- Obtain your GS1 Company Prefix to generate the Global Trade Item Number (GTIN) and Global Location Number (GLN)*
- Enroll for the GS1 HK Data Pool Services
- Determine the GLN for identifying your company within the GDSN Network
- 申請 GS1 公司字首,以編制國際貿易貨品編碼 (GTIN) 和國際位置編碼 (GLN)*
- 登記使用 GS1 HK 數據池服務
- 編定國際位置編碼,以便貿易夥伴在 全球數據同步網絡中識別貴公司

Getting Started 開始

STEP 2 第二步

- Attend training programs to learn about the basics of GDS
- Perform Internal Product Catalog Mapping that conforms to GDSN Standard requirements#
- Execute data cleansing and verify / validate data content to avoid data inconsistencies#
- Implement Product Information Management (PIM) solution which integrates with in-house product data
- 参加培訓課程,進一步瞭解全球數據同步的基礎知識
- 根據合符 GDSN 標準的要求,規劃公司 內部產品數據屬性#
- 整理、審查及確認數據,避免出現誤差#
- 安裝產品資訊管理(PIM)方案,整合公司 內部數據

Preparation 籌備





STEP 3 第三步

- Load your master data to the GS1 HK Data Pool
- Publish the data to your trading partners via the GS1 HK Data Pool
- Receive data from your trading partners via the GS1 HK Data Pool
- 將貴公司的產品數據上載至 GS1 HK 數據池
- 透過GS1 HK數據池,向貿易夥伴發 佈貴公司的產品數據
- 透過GS1 HK數據池接收貿易夥伴的 數據

Communicate 溝通

STEP 4 第四步

- Synchronize and maintain your data with your trading partners, including changes in existing items, new items, and organizational information and subscription maintenance.
- 不斷與貿易夥伴進行資訊交換及數據 同步,包括定期更新現有及新產品資 料、公司資料及提交產品查詢等

Ongoing Data Management 持續進行數據管理

- * To obtain GS1 Company Prefix, please visit our website <u>www.gs1hk.org/en/fullmembership.html</u> for an application form. # GS1 Hong Kong renders professional services to facilitate your implementation process.
- * 如欲申請 GS1 公司字首, 請瀏覽網址 www.gs1hk.org/tc/fullmembership.html 索取申請表格。
- # 香港貨品編碼協會提供專業服務,協助閣下執行全球數據同步。

GS1 Hong Kong Professional Services – Creating Success for You 香港貨品編碼協會專業服務 — 為您開創成功之路



GS1 Hong Kong has the industry expertise in providing global standards and enabling technologies for supply chain management. Our professional services will help enterprises plan and implement a winning strategy for data synchronization. The service package provides the necessary core solutions for data synchronization, including:

香港貨品編碼協會在推動全球標準與應用技術方面,擁有深厚的經驗。協會所提供的專業服務,便 是協助企業策劃及執行有效的數據同步策略。在執 行全球數據同步時所需的實際方案包括:

Fast and Easy Start-up

As the local body for global standards in supply chain management, GS1 Hong Kong offers a range of solutions for companies to kick-start their data synchronization initiative easily and quickly with their trading partners. We also provide the strategies and know-how necessary for GDS planning and implementation, including GDS data pool and Product Information Management (PIM) solutions.

Product Catalog Data Mapping

GS1 Hong Kong provides a technical consultancy service to companies on product catalog data mapping. The service aims to assist companies in developing a data mapping relationship between their internal product catalog data format and the GDSN data schema, which conforms to the GDSN standards.

Data Cleansing Service

To ensure that the product database is clean and complies with the Global Data Synchronization Network (GDSN) requirements, GS1 Hong Kong offers data verification and validation services, which help to identify any discrepancies and inconsistencies that may hamper the process of data synchronization among trading partners.

Customized and On-demand Services

GS1 Hong Kong's professional team offers end-to-end supply chain consultancy and implementation solutions beyond data synchronization. A comprehensive suite of tailor-made and on-demand services is designed to help businesses of all sizes and types join the GDS movement and achieve seamless product catalog data synchronization along the global supply chain.

簡易快捷啟動方案

香港貨品編碼協會作為推行供應鏈管理國際標準的本地組織,提供一系列方案以協助企業與其貿易夥伴,簡單快捷地執行數據同步。此外,協會亦會就企業在計劃及執行全球數據同步時提供致勝之道,其中包括全球數據同步數據池及產品資訊管理(PIM)方案等。

編訂產品數據屬性

香港貨品編碼協會提供技術顧問服務,以助各機構 編訂產品數據屬性。目的是根據全球數據同步網絡 標準,去整理公司內部產品數據,並制定合符全球 數據同步網絡數據格式的公司內部產品數據屬性。

數據整理服務

為確保產品數據無誤,並符合全球數據同步網絡的 要求,協會亦提供數據審查與確認服務,避免貿易 夥伴間出現數據誤差而阻礙進行數據同步。

服務切合個別需求

香港貨品編碼協會的專業人員,除了在數據同步上 給予支援外,亦提供點對點的供應鏈管理顧問與執 行服務。一系列度身訂造、因應需求的服務,能迎 合各行業與大小企業的需要,並協助他們參與全球 數據同步活動,按照全球供應鏈的規範進行產品數 據屬性同步。



Training and Support

One of the key aspects of a successful implementation is training and support. GS1 Hong Kong offers workshops, training programs, and various tools and resources that assist users in GDS deployment and in mastering the complexity of the extended supply chain. GDS training programs are customized to meet the diverse and specific needs of different companies and equip them with confidence to tap into the power of supply chain management.

Corporate Strength backed by Global Network

As the local body for global standards in supply chain management, GS1 Hong Kong is committed to working with Hong Kong enterprises, helping them to become high-performance businesses in order to embrace global commerce opportunities. With a wealth of consultancy expertise specializing in supply chain management backed by a broad global network of resources of over 100 GS1 member organizations, GS1 Hong Kong can help Hong Kong enterprises overcome implementation challenges, streamline business operations and remain competitive in the global marketplace.

Contact Us

Please contact GS1 Hong Kong for more information about the GS1 HK Data Pool or Global Data Synchronization services.

Hotline: (852) 2863 9771

Email: datapoolservices@gs1hk.org

Website: www.gs1hkdatapool.org

培訓及支援

適當的培訓與支援是成功推行商業方案的關鍵。為此,香港貨品編碼協會提供一系列的工作坊、培訓課程、執行工具與資源等,鋭意協助用戶更有效推行全球數據同步,以至掌握全面的供應鏈運作。全球數據同步的培訓課程能切合個別機構的不同情況和需要,為將來更進一步執行高效供應鏈管理做好準備。

環球網絡、強大後盾

香港貨品編碼協會作為推動供應鏈管理國際標準的本地組織,致力與本地企業緊密合作,建立高效營商模式,掌握國際市場拓展商機。協會建繫著超過100家GS1成員組織的強大環球網絡,提供多方面的資源,並配合知深的專業顧問,以及豐富的供應鏈管理經驗,在協助各本地企業執行不同方案時,更為駕輕就熟、從而提升營運效率及市場優勢。

聯絡我們

有關 GS1 HK 數據池或其他全球數據同步服務資料,請與香港貨品編碼協會聯絡。

電話: (852) 2863 9771

電郵: datapoolservices@gs1hk.org

網址: www.gs1hkdatapool.org

About GS1 Hong Kong

GS1 Hong Kong (formerly known as Hong Kong Article Numbering Association), founded in 1989, is a not-for-profit membership-based industry support organization committed to optimizing business efficiency for Hong Kong enterprises through the provision of global supply chain standards and enabling technologies.

GS1 Hong Kong is the <u>ONLY</u> organization authorized to issue and administer GS1 identification numbers in Hong Kong. Its core services include article numbering and bar coding services, B2B e-commerce services, training and education, Electronic Product Code[™]/ Radio Frequency Identification (EPC / RFID) and Global Data Synchronization (GDS). By driving the implementation of these standards, the organization plays a leading role in enhancing demand and supply chain visibility in this part of the world. In Hong Kong, GS1 Hong Kong has nearly 4,500 corporate members representing various industries including the import and export trade, manufacturing, retail, wholesale, professional services and other sectors.

GS1 Hong Kong is the local chapter of GS1, a global not-for-profit organization that develops and manages global supply chain standards. The GS1 community has over one million corporate members around the world.

香港貨品編碼協會簡介

香港貨品編碼協會(英文名稱已由 Hong Kong Article Numbering Association 正式改為GS1 Hong Kong) 是一非牟利、以工商業為本的業界支援機構。協會於1989年成立,致力提供全球通用的供應鏈標準及應用技術,為香港企業提高營商效率。

香港貨品編碼協會是香港唯一獲認可簽發及管理 GS1 國際貨品編碼的機構。協會的核心服務涵蓋貨品編碼及條碼、企業對企業電子商貿服務、培訓及教育、產品電子代碼/無線射頻識別(EPC / RFID)和全球數據同步(GDS)兩項新世代技術。在推行這些標準過程中,協會為本地市場提高需求及供應鏈的透明度上擔當領導角色。現時本會擁有近4,500家企業會員,業務遍佈出入口貿易、生產、零售、批發、專業服務及其他行業。

香港貨品編碼協會為GS1的本地分會,而GS1為全球供應鏈標準開發及管理權威的非牟利機構,在世界各地擁有逾一百萬家企業會員。





GS1 Hong Kong 香港貨品編碼協會 22/F, OTB Building, 160 Gloucester Road, Wanchai, Hong Kong

香港灣仔告士打道 160 號海外信託銀行大廈 22 樓 Tel 電話 : (852) 2861 2819

Fax 傳真 : (852) 2861 2423 Email 電郵 : info@gs1hk.org Website 網址: www.gs1hk.org

