



BUSINESS CASEBOOK 2012

Champion Business Success Through Value Creation

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About GS1 Hong Kong

關於香港貨品編碼協會

Founded by the Hong Kong General Chamber of Commerce in 1989, GS1 Hong Kong is the local chapter of GS1®, a not-for-profit, global supply chain standards organization headquartered in Brussels, Belgium, with over 110 national chapters in 150 countries.

GS1 Hong Kong's mission is to enable Hong Kong enterprises to have more efficient, visible and safer supply chains through the provision of global standards and a full spectrum of standards-based solutions and services, thus making possible business optimization and value creation. The GS1 System of Standards is the world's most widely used supply chain standards, allowing the efficient and secure movement of products, services, and information between companies and facilitating the interoperability between different business systems.

GS1 Hong Kong is the authorized registration organization for GS1 BarCodes and Electronic Product Code System. It also offers platforms for trusted product information, BarcodePlus; e-ordering and replenishment, ezTRADE; a global traceability system, ezTRACK™; and a B2C mobile application, Consumer Connect. The organization also offers training and consulting in supply chain management technologies and best practices, as well as membership and partnership programs to facilitate business matching and global trade collaboration.

GS1 Hong Kong currently has more than 6,000 corporate members covering close to 20 industries including retail consumer goods, food, wine, healthcare, apparel, consumer electronics and logistics.

For more information about GS1 Hong Kong, please visit www.gs1hk.org.

香港貨品編碼協會於1989年由香港總商會成立，是GS1社群的成員組織之一，也是一間積極開發和實施全球供應鏈標準的非牟利機構。GS1總部位於比利時的首都布魯塞爾，擁有超過110個成員組織，遍及全球150個國家。



香港貨品編碼協會憑藉全球供應鏈標準和以標準為本的解決方案及服務，讓香港企業享用更有效率、更高透明度和更安全的供應鏈，以優化業務及創優增值。GS1的標準系統是全球最廣泛採用的供應鏈標準，能促進和保障企業之間的貨物、服務及資訊流通，提升不同商業系統之間的互通性。

香港貨品編碼協會是唯一在香港獲授權註冊GS1條碼和產品電子代碼系統的機構。協會為業界提供多個平台，如搜尋可信產品資訊的BarcodePlus、供業界進行電子採購的「通商易」、全球追溯平台「縱橫網™」及企業對個人推廣流動通訊平台「物密啲」。協會亦提供關於供應鏈管理技術及最佳實務的培訓和顧問服務，並且藉會員及夥伴計劃推動商業配搭及環球貿易協作。

香港貨品編碼協會目前有逾6,000名企業會員，涵蓋約20種行業，包括零售消費品、食品、葡萄酒、醫療護理、成衣、消費電子產品及物流。

如欲進一步了解香港貨品編碼協會，請瀏覽www.gs1hk.org。

Foreword

序



For over two decades now, GS1 Hong Kong has been providing a wide range of standard-based solutions and services to over 6,000 local enterprises in addressing business challenges and ensuring visibility along the entire supply chain.

We believe that through collaboration among trading partners, organizations and technology providers with the use of GS1 standards, we are able to optimize business efficiency, assure product quality and uplift consumption safety to the benefit of the consuming public. Our Global Wine Supply Chain Traceability project, which tracks-and-traces wines from Italian vineyards to Hong Kong along with temperature monitoring, thereby improving inventory management and enhancing quality assurance, earned a prestigious Year 2012 QUID Innovation Italy Award is a clear proof to demonstrate that kind of win-win collaboration.

From 2011 to 2012, GS1 Hong Kong successfully forged major collaborations and implemented joint projects with foreign and local governments, international brands and home-grown small-and-medium enterprises. As such, we are putting together this 2012 Casebook with a theme of 'Champion Business Success through Value Creation', and where 10 successful business stories are featured to provide you insights in knowing how to win in today's global market.

GS1 Hong Kong continues to evolve to meet the requirements and expectations of industries and consumers by constantly developing and adding enhanced features and practical applications to our standard-based solutions. Our ultimate goal is to empower local enterprises with GS1 standard-based solutions because we believe that their success is Hong Kong's success.

香港貨品編碼協會於過去二十年，為逾6,000家本地企業提供以標準為基礎的解決方案及服務，以協助它們面對營商環境上的挑戰，並體現供應鏈透明化。

我們相信，透過GS1標準以及貿易夥伴、機構組織及技術供應商之間的協作，不單能優化企業營運效率，同時更有助確保產品質素及安全，令消費者得到保障。香港貨品編碼協會推動全球酒類產品供應鏈追溯計劃，成功從義大利葡萄酒莊園至香港進行產品流向追溯及溫度監控，令本地入口商及零售商有效提升倉存管理效率，並向消費者提供產品質素保證。此計劃於2012年度獲得義大利QUID創新嘉許獎項，足可證明此計劃所帶來的雙贏效益。

於2011至2012年，本會亦成功與海外及本地政府、國際品牌，以及本地的中小企業共同協作及發展多個項目，成績斐然。本會從上述的合作計劃中選出十個成功案例，輯錄在這本「為消費者創優增值 締造企業優良業績」的特刊中，讓各界了解如何在現今環球市場中取得成果。

香港貨品編碼協會將繼續加強本會的職能，積極開發以標準為基礎的解決方案，並且加入提升了的功能和實務應用，以回應業界與消費者的期望與需求。本會矢志透過以GS1標準為本的解決方案協助本地企業提升競爭力，與香港共同進步、邁向成功。



Anna Lin, JP
林潔貽太平紳士

Chief Executive, GS1 Hong Kong
香港貨品編碼協會總裁

GS1 Hong Kong 香港貨品編碼協會



“Consumer Connect envisions to help businesses, especially our SME members, to generate business opportunities, protect from counterfeits, and create brand, product / service awareness through the mobile marketing trend. This simple yet cutting edge mobile platform serves as Trusted Source of Data (TSD) and an ideal genuine product authentication and marketing tool that will result in win-win situation for businesses and consumers,” said Ms. Anna Lin, JP, Chief Executive, GS1 Hong Kong.

香港貨品編碼協會總裁林潔貽太平紳士表示：「我們乘著流動電話普及的趨勢推出物密啲，目標是協助業界，特別是中小企業，創造商機及阻截偽冒產品流入市場、以及提高品牌、產品及服務的知名度。這個簡單而先進的手機流動平台不但能為各界提供可信的產品資料來源，同時亦是產品驗證及市場推廣的理想工具，能為業界及消費者帶來雙贏的效益。」

Elevating product / service value and creating new shopping experience with standard-based mobile application

透過以標準為基礎的手機流動推廣平台
提升產品 / 服務的價值 並為顧客提供嶄新的購物體驗

GS1 STANDARDS USED 應用的GS1標準

Global Trade Item Number (GTIN) 國際貨品編碼

Global Location Number (GLN) 國際位置編碼

EAN/UPC BarCode EAN/UPC 條碼

GS1-128 BarCode GS1-128 條碼

GS1 DataBar™ GS1 DataBar™ 條碼

QR Code QR碼

GS1 DataMatrix GS1 DataMatrix

SOLUTIONS APPLIED 推行方案

Consumer Connect¹ 物密啲¹

BarcodePlus² BarcodePlus²

CONSUMER BENEFIT 消費者效益

Increase purchasing confidence by having easy access to product information with Trusted Source of Data, and interactions with the brands

透過可信的產品資料來源及品牌互動聯繫 協助消費者輕易取得產品資訊 加強購物信心

ULTIMATE GOAL 最終目標



¹ Consumer Connect: A direct mobile communications platform that helps brand owners and retailers to deliver their product, service and brand values by scanning GS1 BarCodes.
物密啲: 一個流動通訊平台, 讓品牌商和零售商與消費者共同建立溝通互動的新模式。用戶只需掃描一次GS1條碼, 品牌商就能帶出產品、服務和品牌价值。

² BarcodePlus: A product and location information portal that allows users to access and share quality data using GS1 Keys like GTIN and GLN via the internet and smartphone.
BarcodePlus: 透過GS1識別碼如國際貨品編碼及國際位置編碼, 能使不同用戶經由互聯網及智能手機獲取並分享產品及位置資料的資訊平台。

BACKGROUND

In the Fall of 2009, Global GS1 partnered with global brands and retailers such as Nestlé, Kraft, Johnson & Johnson, Wal-Mart, Metro and Carrefour in defining open standards that will allow businesses and consumers to interact via mobile phones. These companies were spearheading and driving efforts to connect businesses (including brand owners, distributors, and retailers) and consumers using mobile phones with local GS1 offices. GS1 Hong Kong was one of the supporting local offices.

CHALLENGES

In 2011, GS1 conducted a study on how consumers in seven countries including the US, Canada, UK and Australia are using Barcodes to retrieve product information using mobile applications.

The survey showed that consumers give extra importance on the accuracy of product information they get from their mobile application. They may also defer buying a product if they cannot trust the product information when they scan a product BarCode. Another report reveals that the industry must help consumers make "informed" buying decisions by providing them with "trustworthy" information (or Trusted Source of Data - TSD).

In today's digital world, consumers have easy access to product information using mobile gadgets. As such, brand owners must provide consumers with digital product data and TSD of

their products to make wise purchasing decision. "We believe consumers can more engage with the brands, distributors, and retailers by enhancing product / service values if we can offer a trusted information platform via mobile application," said Ms. Anna Lin, JP, Chief Executive, GS1 Hong Kong.

SOLUTIONS

GS1, as a supply chain standards organization, aims to become the TSD that brand owners can rely on in order to provide consumers with accurate product / service information. Sharing the same vision, GS1 Hong Kong incorporates product and location information in BarcodePlus portal. It has also developed a Consumer Connect mobile app on Apple iOS and Google Android* platforms where consumers can easily retrieve product / service information free of charge.

With Consumer Connect, consumers only need to scan the GS1 BarCode



found in product packaging or QR Code in a store to directly view product and service information via TSD source in BarcodePlus.

Besides showing basic content on product packaging such as ingredients and nutritional facts, it also displays additional data such as product uniqueness, benefits, and promotional video link, which consumers can bookmark if they find it useful, and share with friends via Facebook, Email, and SMS.

Consumer Connect also allows brand owners, distributors, and retailers from sizable to SME companies to promote their marketing campaigns by just scanning the GS1 BarCodes.



BENEFITS

Enhance product and brand image with consumers through product authentication service, digital coupon, and marketing and promotional campaigns

Besides displaying the product / service information via Consumer Connect, the app is also a platform for businesses to combat counterfeits with its product authentication service features. It also promotes product / service value add for marketing campaigns such as digital discount coupons, multimedia contents, and lucky draw. Plans are in the pipeline for various well-known companies to use the promotion features on Consumer Connect in their future marketing campaigns. The joint campaign promotions will be launched in late 2012.

To download Consumer Connect, please visit www.consumerconnect.hk.

背景

2009年秋天，GS1總會與多個國際品牌及零售商如雀巢、卡夫、強生、沃爾瑪、麥德龍集團及家樂福合作，目標是尋求一套開放標準，以協助業界及消費者透過流動通訊設備進行互動。上述企業與GS1多個分會分別展開努力，利用手機這個媒體加強企業(品牌商、分銷商與零售商)與消費者之間的連繫。作為GS1分會之一，香港貨品編碼協會亦就上述的項目提供了重要支援。

挑戰

2011年，GS1組織進行了一項調查，了解美國、加拿大、英國、澳洲等七個國家的消費者透過手機應用程式接收產品資訊的情況。

調查結果顯示，消費者十分關注手機應用程式所提供產品資料的真確性。若他們在掃描產品條碼時發現產品資料不可靠，便會暫緩購買有關產品。另一份研究的結果顯示，業界有責任為消費者提供可信的產品資料，以助他們作出明智的購物選擇。

在這個數碼年代，消費者可輕易地透過流動通訊設備獲取產品的資訊。品牌商有責任為消費者提供可信的產品資料來源及相關的電子產品資訊，以助他們作出明智的購物選擇。香港貨品編碼協會總裁林潔貽太平紳士表示：「若我們

能透過流動通訊應用程式為消費者提供可信的產品資料平台，藉此提升產品及服務的價值，消費者便會和品牌、分銷商及零售商建立更緊密的連繫。」

方案

作為推廣供應鏈標準的組織，GS1的目標是成為可信的資料來源，以支援品牌商為消費者提供正確無誤的產品/服務資料。香港貨品編碼協會本著同樣的理念與目標，成功透過BarcodePlus平台儲存了產品與其位置資訊，並開發了一個可於Apple iOS及Google Android*操作平台上運作，名為物密啲的手機流動應用程式，讓消費者輕易地查看免費的產品/服務資訊。

消費者只須透過物密啲掃描印於產品包裝上的GS1條碼或零售點提供的QR碼，便可直接查看BarcodePlus資訊平台提供的可信產品/服務資料。

透過物密啲，消費者不但能查看產品成份、營養標示等印於產品包裝上的基本資料，還可獲取更詳細的資料如產品的獨特性、效益及產品推廣錄像連結等。有需要的話，消費者可以把該產品加入書籤內，並透過Facebook、電郵及短訊與朋友分享。

物密啲更有助品牌商、分銷商、零售商以及不同規模的企業推行產品推廣計劃，消費者只須使用該應用程式掃描產品的GS1條碼，便可獲取相關的推廣資訊。

效益

透過產品驗證服務、數碼優惠券及市場推廣計劃 提升產品及品牌形象

上述應用程式不但可讓消費者透過物密啲取得產品/服務資訊，更可透過產品驗證服務協助業界打擊偽冒產品。此外，企業更可利用數碼優惠券、多媒體內容及幸運抽獎等方式，宣傳產品/服務的增值計劃。協會現正計劃與知名的企業加強合作。於可見未來，業界將可透過物密啲進行市場推廣。有關的宣傳合作計劃將於2012年底推出。

有關下載物密啲詳情，請瀏覽以下網址：www.consumerconnect.hk。

Retrieves extended trusted source of product information by brand owner
搜尋由品牌持有人提供，可信的延伸性產品資料



Consumers 消費者



Creates brand awareness and receives exclusive offer from promotional campaigns
提升品牌知名度
獲取推廣計劃內的獨家優惠

Further promote products by consumers via social media, email, and SMS

藉消費者與朋友間透過社交網、電郵及短訊的互動，進一步推廣產品



Businesses including Brand Owners, Distributors, Retailers

業界(包括品牌持有人、分銷商及零售商等)



Leverage latest mobile marketing and engage with consumer

藉最新的手機推廣項目與消費者進行互動

* Google Android version will be ready in Google Play for free by late 2012.
物密啲 Google Android 版本將於 2012 年底在 Google Play 公開免費下載。

V-MODA



“By adopting GS1 Hong Kong GENUINE Product Authentication Solution, we now have better control of our product price and sales channel, as well as improve our customer relation management,” said Mr. Gavin Luk, Executive VP – APAC, V-MODA.

V-MODA亞太區行政副總裁陸正則先生表示：「香港貨品編碼協會提供的『正貨』驗證方案，有助公司有效地管理產品的市場價格及銷售渠道，提升顧客對品牌的信心，進一步維護V-MODA在耳機市場上的品牌價值。」

Preventing counterfeits and enhancing product management by adopting standard-based product authentication solution

透過以標準為基礎的產品驗證方案
打擊偽造品 提升產品管理

GS1 STANDARDS USED 應用的GS1標準

Serialized Global Trade Item Number (SGTIN) 國際貨品編碼序號

Serial Shipping Container Code (SSCC) 貨運容器序號

Electronic Product Code Information Services (EPCIS) 產品電子代碼訊息服務

QR Code QR碼

SOLUTIONS APPLIED 推行方案

BarcodePlus¹ BarcodePlus¹

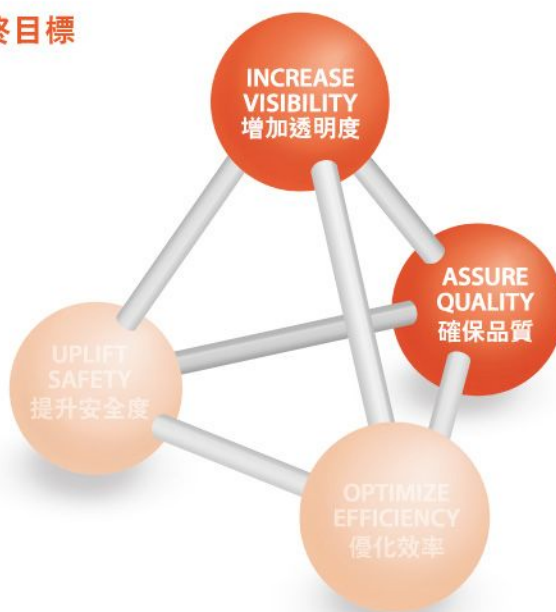
GENUINE Product Authentication² 「正貨」驗證²

ezTRACK™³ 蹤橫網™³

CONSUMER BENEFIT 消費者效益

Gaining higher purchasing confidence with quick and easy-to-access warranty registration service
增加顧客的購買信心，並提供快捷的保修登記服務

ULTIMATE GOAL 最終目標



¹ BarcodePlus: A product and location information portal that allows users to access and share quality data using GS1 Keys like GTIN and GLN via the internet and smartphone.
BarcodePlus: 透過GS1識別碼如國際貨品編碼及國際位置編碼，能使不同用戶經由互聯網及智能手機擷取並分享產品及位置資料的資訊平台。

² GENUINE Product Authentication: A solution powered by the EPCIS network that enables supply chain e-pedigree visibility.
「正貨」驗證：一個產品驗證的解決方案，利用EPCIS網絡提供供應鏈電子系譜透明度。

³ ezTRACK™: Cloud based EPCIS-standard traceability network that facilitates real-time visibility of goods and information flow from point of source to point of destination.
蹤橫網™：以雲端科技為基礎，並以產品電子代碼資訊服務為標準的追溯網絡，能提供由來源地至目的地之實時貨物流及資訊流的資訊透明度。

BACKGROUND

Hollywood, US-based V-MODA is a life-style headphone brand that has been providing all true music lovers with ultimate music experience since 2006. In producing iconic, museum-quality headphones, it collaborates with some of the world's popular producers, DJs and artists to ensure all listening needs of consumers and technical details are met. Also, with a solid commitment to maintain best quality headphones in the industry, V-MODA only uses classic materials including steel, aircraft-grade aluminum, zinc and Kevlar to produce military-grade test standard headphones, thus receiving accolades from music lovers worldwide.

CHALLENGES

V-MODA realized that counterfeiting is a serious problem in Asia when it first entered the market where consumers can easily buy inferior items online. "It is sometimes difficult for consumers to differentiate a fake product with an original product because some counterfeit looks similar and functions the same as real one. However, it is in the quality of the item where the gap is clearly distinguished," said Mr. Gavin Luk, Executive VP – APAC, V-MODA. As a result, V-MODA received chunk of complaints both from authorized distributors and valuable customers thereby straining their relationship with channel distributors, as well as increasing the pressure of managing customer service due to high numbers of fake products being returned to them. Most importantly, it damages the brand image, company reputation, and loses the trust and loyalty of the buying public.

SOLUTIONS

In proactively addressing the challenge, V-MODA APAC team has initiated a project to tackle the problems. After the system design phase and final the system requirements, the project team then

carefully selects partners, suppliers and technologies. Finally, a program was started with GS1 Hong Kong in April 2012 by adopting GS1 Serialized Global Trade Item Number (SGTIN) and GENUINE Product Authentication Solution on all its headphone products. Instead of using only linear barcode, a QR code is printed on two labels to serve different operational purposes. One of the labels is stuck on the packaging, which the QR code used to store the SGTIN with product e-pedigree. With this code, consumers can make inquiries about the product, starting from the point when the goods are labeled, packed, picked up for distribution and delivered to retail shop via V-MODA's website, which connected to GS1's BarcodePlus by simply scanning the QR code with their smartphone before purchase. After purchasing the headphone, consumers can use their smartphone to scan the QR code found in the user manual where a unique verification code is added for authentication and warranty registration purposes. Once the product is registered, consumers can directly access V-MODA's Warranty



Registration System, where the model number and serial number of the product is automatically inputted. Consumers just need to enter their contact information which is immediately submitted and stored in V-MODA server.

To enable the above function, V-MODA changed the whole data capture process at their manufacturing plant by labeling carton boxes carrying the company's headphone products with GS1 Serial Shipping Container Code (SSCC). Using a barcode reader, a V-MODA staff associates the SSCC barcodes with items inside the box, including the headphone's model, serial number, SGTIN and total quantity. This process enables the capture of accurate product data and its movement information including event time, location and business process, which is then uploaded to GS1 Hong Kong's ezTRACK™. This procedure is again done when the item is shipped out and stocked-in in every location, such as factory, logistic hubs, distributors' warehouse and retail outlets.



BENEFITS

"By adopting GS1 Hong Kong GENUINE Product Authentication Solution, we now have better control of our product price and sales channel, as well as improve our customer relation management," said Mr. Gavin Luk, Executive VP – APAC, V-MODA.

背景

V-MODA成立於2006年，總部設於美國荷李活，以高品質及時尚設計作定位的耳機品牌，讓音樂愛好者能體驗優質的音樂享受。V-MODA經常與國際知名的音樂製片人，唱片騎師和藝術家合作研發耳機的每項細節，以製造具標誌性、高質素的耳機產品以迎合不同市場需要。此外，V-MODA亦對顧客作出產品質量的承諾，採用耐久性原料，如以鋼、鋅、製造飛機用的鋁和既輕且高強度的纖維來生產達軍事級測試標準的耳機，獲得世界各地用家欣賞。

挑戰

當V-MODA開展亞洲市場的業務時，發現消費者可以輕易地在多個網上商店購買與其同名的偽造品，對它們的業務造成嚴重的影響。V-MODA亞太區行政副總裁陸正則先生表示：「對消費者而言，有時的確很難區分產品的真偽。這是因為假冒產品在外觀和功能上與真貨十分相似，但若將兩者直接比較，它們的質量確實有很大的差距。由於消費者在難以辨識的情況下購買了低劣的偽造品，在發現質量問題時向公司作出投訴及退貨，大大加重了客戶服務部的壓力及工作量。此外，這問題亦影響了公司與授權分銷商的業務關係，令分銷商對公司產品管理信心度減低；更重要的是，它最終損害了品牌的形象和失去消費者的信任。」

方案

為積極應對上述的挑戰，V-MODA亞太團隊啟動了項目，先完成系統框架設計和定義系統要求，再選擇合作伙伴、供應商和應用技術。於2012年4月決定與香港貨品編碼協會合作一項「正貨」驗證方案，利用GS1的國際貨品編碼序號識別每件耳機產品，打擊市場上的偽造品。除沿用一維條碼外，更將QR碼印於兩款產品標籤上以達到不同的營運目的。其中一款產品追蹤標籤貼於產品包裝盒上，消費者可於購買產品前，以智能手機掃描載有該產品獨有的國際貨品編碼序號之QR碼，通過V-MODA網頁連接至香港貨品編碼協會的BarcodePlus平台查詢有關產品由標籤、包裝、分配到銷售店鋪的供應鏈電子譜系，以了解產品可供銷售的狀況。當購買產品後，消費者更可掃描於盒內用戶手冊上的QR碼，利用其編配的獨一

無二驗證碼辨識產品的真偽和進行保修登記。現在，消費者可直接進入V-MODA的保修登記系統，該系統會自動輸入所購買的產品型號和序列號；消費者只需鍵入他們的聯絡資料，便可立即提交到V-MODA伺服器進行登記。

為達到有關目的，V-MODA在原廠點開始，將每件產品外盒貼上追蹤標籤，然後將產品裝箱，並貼上編配有GS1貨運容器序號的標籤。工作人員利用條碼閱讀器將貨箱上的貨運容器序號與箱內每件貨品條碼進行數據互聯，以紀錄耳機的型號、序列號、國際貨品編碼序號和箱內貨品的總數量。透過這個流程，可準確收集產品和物流過程的資料，包括時間、地點及供應鏈上的關鍵步驟，然後上載到香港貨品編碼協會的縱橫網™。往後在貨品出倉及付運時再次進行上述步驟，當中的供應鏈關鍵點包括廠房、物流中心、分銷商和零售店鋪。

效益

V-MODA亞太區行政副總裁陸正則先生表示：「香港貨品編碼協會提供的『正貨』驗證方案，有助公司有效地管理產品的市場價格及銷售渠道，提升顧客對品牌的信心，進一步維護V-MODA品牌價值。」

V-MODA headphones in carton boxes are labeled with GS1 Serial Shipping Container Code (SSCC) in the manufacturing plant
V-MODA在原廠點開始，於產品外箱上貼上編配有GS1貨運容器序號的標籤

This process enables the capture of accurate product data and dissemination of information at factory, logistic hubs, distributors' warehouse and retail outlets, which is then uploaded to GS1 Hong Kong's ezTRACK™
透過這個流程，可準確收集產品於廠房、物流中心、分銷商及零售點的關鍵資料，然後上載至縱橫網™

After purchased, consumers can use their smartphone to scan the QR code found in the user manual where a unique verification code is added for authentication and warranty registration purposes
當購買產品後，消費者更可掃描於盒內用戶手冊上的QR碼，利用其編配的獨一無二驗證碼辨識產品的真偽和進行保修登記



Using a barcode reader, a V-MODA staff matches the SSCC barcodes with items inside the box, including the headphone's model, serial number, SGTIN and total quantity

工作人員利用條碼閱讀器將貨箱上的貨運容器序號與箱內每件貨品條碼進行數據互聯，以紀錄耳機的型號、序列號、國際貨品編碼序號和箱內貨品的總數量

Consumers can inquire about the product authorized sales location via GS1 Hong Kong's BarcodePlus by simply scanning the QR code using their smartphone before purchase

消費者可於購買產品前，以智能手機掃描QR碼，通過香港貨品編碼協會的BarcodePlus平台查詢有關產品可供銷售地點的資料

AEON Stores (Hong Kong) Co. Ltd.
General Mills Hong Kong Ltd. &
Lam Soon Hong Kong Group
永旺(香港)百貨有限公司、
General Mills Hong Kong Ltd及南順香港集團



"With GS1's GTC programme, Lam Soon can further enhance its product track-and-trace capability to ensure consumers' protection," said Ms. Maria Ho, Group Product Safety & Compliance Manager, Lam Soon Hong Kong Group.

南順香港集團集團產品安全及合規經理何嫻女士表示：「透過GS1全球可追溯性準則，南順可進一步提升產品追蹤與追溯能力，以提高對消費者的安全保障。」

Assessing track-and-trace capability via GS1 Global Traceability Conformance

透過GS1全球可追溯性準則 評估企業之產品追蹤與追溯能力

SOLUTIONS APPLIED 推行方案

Global Traceability Conformance (GTC)¹ 全球可追溯性準則¹

Global Traceability Standard (GTS)² 全球追溯標準²

CONSUMER BENEFIT 消費者效益

Protecting consumer safety by ensuring product quality and risk reduction

保證產品質素 減低風險 以保障消費者安全

ULTIMATE GOAL 最終目標



¹ Global Traceability Conformance (GTC): A methodology and set of tools to audit and assess existing traceability systems based on the processes described in the GS1 Global Traceability Standard and international standards such as ISO 9001, ISO 22005, HACCP, and other food safety standards.

全球可追溯性準則：一套以GS1全球追溯標準及其他國際性標準(例如：ISO 9001, ISO 22005, HACCP及其他食品安全法則)為基礎，用作稽核及評估現行追溯系統的方法及工具。

² Global Traceability Standard (GTS): A business process standard that enhances the ability to track forward the movement of products along stage(s) of the supply chain and to trace backward the history, application or location of products in compliance with the appropriate GS1 identifier.

全球追溯標準：一套以特定的GS1識別碼為基準的商業流程標準，其作用是協助企業改善追蹤產品供應鏈流向，以及提高企業追溯產品歷史、應用及位置的能力。

BACKGROUND

AEON Stores (Hong Kong) Co. Ltd.

(AEON) – Founded in Hong Kong in November 1987, AEON is well-known for providing a wide range of daily necessity merchandise at reasonable prices to customers. Currently it operates seven JUSCO, five independent Supermarkets, twenty-two Independent JUSCO Living PLAZA, four Bento Express (Japanese take-away restaurant) and two AEON MaxValu Prime in Hong Kong.



General Mills Hong Kong Ltd.

(General Mills) – A leading global food company with one and-a-half century of experience in producing quality goods that markets popular brands in Hong Kong including premium ice-cream Häagen-Dazs™ and a first-rate brand of Chinese dim sum Wanchai Ferry.

Lam Soon Hong Kong Group

(Lam Soon) – Established in Hong Kong for over half a century, Lam Soon is engaged in the manufacturing and distribution of flour, edible oil and detergent that are well-known in Hong Kong and is one of the leading brands in China today.

CHALLENGES

The increasing complexity of today's business processes and supply chain prompted manufacturers, brand owners and retailers to find effective means of ensuring consumer safety. However, industry stakeholders must have identical data exchange formats for all parties along the global supply chain to guarantee the accuracy and speed of traceability system, and to maintain cost at manageable level. Stakeholders also need to ensure that their traceability system complies with international

industry requirements such as ISO 9001, ISO 22005, HACCP, BRC, GLOBAL G.A.P. .

SOLUTIONS

To address this changing market dynamics, AEON, General Mills and Lam Soon decided to enhance product safety and improve their track-and-trace capability. The companies appointed GS1 Hong Kong to access their existing traceability systems through GS1 Global Traceability Conformance (GTC) programme, in order to assess their readiness in introducing a GS1-based traceability system. It also allowed them to have their current system evaluated and audited to meet customers' requirements and regulations that in line to best practices and global standards.

AEON, General Mills and Lam Soon adopted the GTC at Jusco store, the ice-cream cake production plant, and flour/edible oil /detergent warehouse respectively. In all these sites, the operation procedures and capability to perform traceability were assessed and analyzed based on 105 control points of twelve GTC assessment areas in terms of:

- **Identification:** How traceable items are identified and coded
- **Information:** What data are received, used and provided
- **Systems and Technologies:** What traceability systems and technologies are in place
- **Operations:** How traceability works and crises are managed
- **Procedures:** How traceability is acknowledged and documented

GS1 Hong Kong also provided below recommendations to these companies:

AEON – A traceability system is in place. To further ensure product freshness and to protect consumers safety, the company is recommended to embed GS1 DataBar™ at fresh produce sector, and incorporate SSCC (Serial Shipping Container Code) in product receipt areas to facilitate receiving process.

General Mills – GS1 recommends the company to enhance its product traceability by implementing identification on its work-in-progress container using automatic capturing tool. In the meantime, with the trial of using GS1 standard-based barcode, the company targets to capture production batch and/or expiry lot information to control and ensure product freshness.



Lam Soon – GS1 Hong Kong recommends the company to further enhance its product traceability by adopting GS1 GTIN (Global Trade Item Number) on raw materials and SSCC (Serial Shipping Container Code) on logistics units, such as carton boxes.

BENEFITS

With a clear picture of their current traceability practices, the companies have been advised to extend their track-and-trace practices with other trading partners, starting with ingredients inspection, manufacturing and distribution. This broadens their track-and-trace ability instead of just the basic 'one up, one down' principle. It also optimizes flow of goods, services and data linked along the whole supply chain, benefitting supplier pre-selection, production process improvement and product replenishment.

背景

永旺(香港)百貨有限公司(永旺百貨)成立於1987年11月，是香港著名的連鎖商店，提供物有所值及一應俱全的日常生活用品給顧客。現時於香港經營7間JUSCO、5間獨立超級市場、22間獨立JUSCO Living PLAZA、4間Bento Express(日式便當專門店)及2間AEON MaxValu Prime。

General Mills Hong Kong Ltd. (General Mills)至今已有一百五十年的歷史，是國際知名的食品製造商。該公司以生產優質食品為宗旨，推出高級雪糕品牌「Häagen-Dazs™」，以及知名中國點心品牌「灣仔碼頭」。

南順香港集團(南順)在香港成立超過五十年，以製造及分銷麵粉、食用油與清潔用品為主要業務，並成為香港及中國內地的市場領導者之一，廣為人所熟悉。

挑戰

現今的商業運作與供應鏈流程變得愈來愈繁複，製造商、品牌持有人與零售商都需尋求更有效的方法來保障消費者的安全。事實上，業界持份者都面對著同樣的挑戰，他們必須共同協定及運用一個能適用於全球供應鏈參與方的數據交換標準，以保證追溯系統的準確性及追溯速度，同時能將成本維持在合理的水平。此外，業界持份者亦須確保其追溯系統符合國際工商業界的質管要求，例如ISO 9001, ISO 22005, HACCP, BRC, GLOBAL G.A.P. 等。

方案

永旺百貨、General Mills 與南順認為必須要提高產品的追蹤與追溯能力，並提升產品安全，才可應對當前多變的市場

狀況。三家公司分別委託香港貨品編碼協會，為其現行的產品追溯系統作出評估。協會透過「全球可追溯性準則」，評估各公司使用以GS1為標準的追溯系統的可行性，並根據最佳實務與全球性標準，就其現行的系統進行審計與評核，協助他們作出相應的改善，以達至消費者的要求及政府法規。

永旺百貨、General Mills 和南順分別在其超級市場、雪糕蛋糕加工廠和麵粉/食用油/清潔用品倉庫進行追溯系統評估。香港貨品編碼協會根據「全球可追溯性準則」的12個評估範疇，共105個監察點，進行分析與評估。當中涵蓋範圍包括：

- **識別**：怎樣識別可追溯的物件及將其編碼
- **資訊**：獲得、使用及提供了甚麼資訊
- **系統與技術**：使用了甚麼類型的追溯系統和技術
- **運作模式**：追溯流程如何運作、如何處理危機
- **程序**：怎樣確認及記錄追溯流程

香港貨品編碼協會並向三家公司提出有關建議：

永旺百貨 — 經實地視察後，該公司已具備一套可追溯性系統。為進一步保證食品的新鮮度及加強對消費者的保障，香港貨品編碼協會建議永旺百貨在新鮮食品上使用GS1 DataBar™，協會更建議該公司在收貨區的貨箱或貨板加入貨運容器序號，以改善收貨流程。

General Mills — 香港貨品編碼協會在審計其追溯系統後，建議其試用使用自動化擷取工具，擷取運送過程中貨箱的資料，以保證食品的安全。與此同時，General Mills 會試用使用以GS1標準為基礎的條碼以擷取生產批次及/或產品到期日的資料，以保證產品新鮮。

南順 — 香港貨品編碼協會建議在原材料上加入GS1國際貨品編碼，及在紙箱等物流單位上加入貨運容器序號，以便進一步提升公司的產品追溯能力。



效益

經過仔細的審計及評估，永旺百貨、General Mills 與南順對現行的追溯系統得到清晰的了解，協會亦建議他們可進一步尋求與其他貿易夥伴合作，加強及擴展產品追蹤與追溯的範圍，從原料的檢查、生產過程至分銷流程。這樣，企業除可加強保障產品安全、減低風險。此外，更可優化整體供應鏈上貨物、服務與資訊的流向，有助企業挑選合適的供應商，改善生產及補貨流程。

Lam Soon is recommended to adopt GS1 GTIN and SSCC on raw materials and logistics units respectively, so to enhance the accuracy of traceability
香港貨品編碼協會建議南順在原材料及物流單位上分別加入GS1國際貨品編碼和貨運容器序號，令追溯產品及物流單元時更準確

Product traceability can be enhanced with identical data exchange format among trading partners along supply chain
商貿合作夥伴可透過全球供應鏈數據交換標準，提升產品追溯能力

Consumers are being protected by purchasing good quality products that are safe for consumption
確保產品質素以保障消費者安全



city'super Group city'super 集團



"The SSCR methodology is an ideal solution in maximizing profitability along the supply chain by achieving better inventory control and integrated cooperation within the organization," said Mr. K.L. Chan, Deputy Head of Supply Chain, Operations Support Services, city'super Group.

city'super 集團區域零售營運副總監陳鑫鈴先生表示：「同步供應鏈補貨模式能有效優化庫存管理及公司內部各業務單元的合作，盈利倍增。」

Enhancing product replenishment efficiency with Synchronized Supply Chain Replenishment Solution

使用同步供應鏈補貨模式 加快產品補貨效率

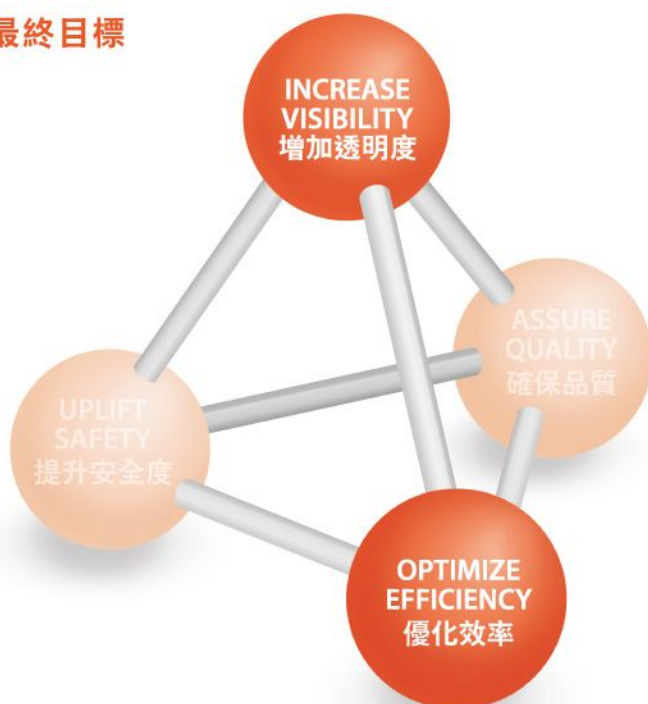
SOLUTIONS APPLIED 推行方案

Synchronized Supply Chain Replenishment (SSCR)¹ 同步供應鏈補貨模式¹

BUSINESS BENEFIT 商業效益

Maximize sales opportunity with higher rate of on-shelf-availability
增加貨架使用率 提升銷售商機

ULTIMATE GOAL 最終目標



¹ SSCR: An inventory planning solution which incorporates Theory of Constraints, assisting companies to respond to market quickly by examining existing inventory status via simulation, and prioritizing product portfolio with different replenishment requests.

同步供應鏈補貨模式：一套揉合「約束理論」的庫存管理方案。透過模擬手法剖析企業庫存問題，並因應不同的補貨要求將種類繁多的產品而優先處理排列，達到快速市場回應。

BACKGROUND

city'super Group is a 'Mega Lifestyle Specialty Store' that offers a true and unique 'one-stop-shopping' experience for today's busy urban professionals. By sourcing international high quality merchandise, city'super is committed to providing high quality products, ranging from the very best food items to trendy stationary and fashion accessories that all passed high quality control ensuring safe consumer consumption and environment-friendly.

CHALLENGES

Time and money are wasted every year due to inefficiencies along the supply chain. Retailers are faced with critical operational issues, including inaccurate inventory, out-of-stocks, increase administrative man-hours due to human error, hence affecting their market competitiveness.



With a dozen number of retail outlets in Hong Kong, city'super group trades and collaborates with multiple business partners worldwide. To address and meet the demand of ever-changing market requirements, the company must effectively manage inventory of a large pool of right products, and ensure that they are delivered at the right place and right time. According to Mr. Ivan Lam, Head of Information Technology, having an efficient replenishment strategy has significant impact on sales revenue and customer satisfaction.



A reliable replenishment solution is crucial for city'super to have a better inventory practice and effectively manage its daily huge transactions.

SOLUTIONS

To address these challenges, city'super started a trial project in April 2012 in partnership with GS1 to implement the Synchronized Supply Chain Replenishment (SSCR) solution aimed at helping the company simulate inventory replenishment. Under the pilot, 10 sample SKUs with daily transaction data in Year 2011 were selected for simulation. GS1 first checked the data integrity and existing inventory status of the selected SKUs. They were then reviewed to determine their priority level of replenishment, enabling city'super to have a clear view which product is on top priority to meet actual market demand. The pilot also identified other products with balanced inventory, while those SKUs identified as slow-moving products will have less stock to free up warehouse

space and allocate it to fast-selling items. The different SKUs were categorized based on their priority level or zone, while daily replenishment requests will thus be given to help the company keep an optimized inventory level.

With SSCR, city'super is able to categorize product portfolio, establish product ranking and effectively recommend and suggest which relevant products need urgent replenishment. Product lead-time, minimum quantity of replenishment, promotional factors and sales pattern were all considered in conducting the trial project.



BENEFITS

By adopting the SSCR solution, city'super will be able to improve inventory management using a responsive replenishment process, eliminating out-of-stock and optimizing on-shelf-availability rate. city'super aims to reduce inventory level by a minimum of 5-10% for the first year by implementing SSCR.

背景

city'super集團是一家大型的生活專門店，致力為現今繁忙的都市專業人士提供一站式的購物服務及體驗。city'super不斷從世界各地搜羅各種優質的貨品，務求為顧客提供高質素的產品，包括頂級食品、潮流文儀用品與服飾等。旗下所有貨品均符合質優產品檢定，既符合環保要求同時亦有效保障消費者的安全。

挑戰

每年，因供應鏈效率欠佳而導致大量金錢與時間上的損失。當中，零售商所面對的挑戰，如庫存誤差、缺貨、人為錯誤所增加的行政工時等，這些問題都一一影響企業的競爭能力。

city'super集團在香港旗下的十多家零售專門店，一直與遍佈世界各地的商業夥伴進行貿易及合作。為迎合瞬息萬變的市場需求，該集團必須有一套完善的方法管理庫存，並能適時把合適的產品推出至市場。city'super營運支援服務部資訊科技主管林鑑明先生指出：「一套完善的補貨策略可直接影響企業的盈利與顧客的滿意度。對於city'super來說，要有效地執行庫存監控及管理每日龐大的交易額，必須要找到一套可靠的補貨方案。」

方案

為面對上述的挑戰，city'super於2011年4月與香港貨品編碼協會合作進行了一個試點計劃，透過同步供應鏈補貨模式(SSCR)方案，為該公司模擬設計出一個有效的補貨策略。計劃以2011年度內十件貨品為模擬目標。香港貨品編碼協會首先核對有關貨品每日的交易數據，其後，仔細研究現有的存貨狀況，並擬定優先補貨的排列次序，讓公司可以了解何種產品在市場上有最大的需求，何種產品存貨量處於合理水平，以及何種產品存貨量過剩，必須減低存貨量以騰出貨倉空間



擺放暢銷產品。協會再根據上述每件貨品的優先處理排序進行分類，然後擬定每日的補貨要求，以便該公司可以根據上述資料維持最合適的存貨量。

city'super成功透過SSCR方案為產品項目進行分類，擬定產品銷售排名，及制定產品優先補貨策略。在進行試點計劃時，方案亦考慮到產品補貨時間、最少補貨量、促銷及銷售模式等因素。

效益

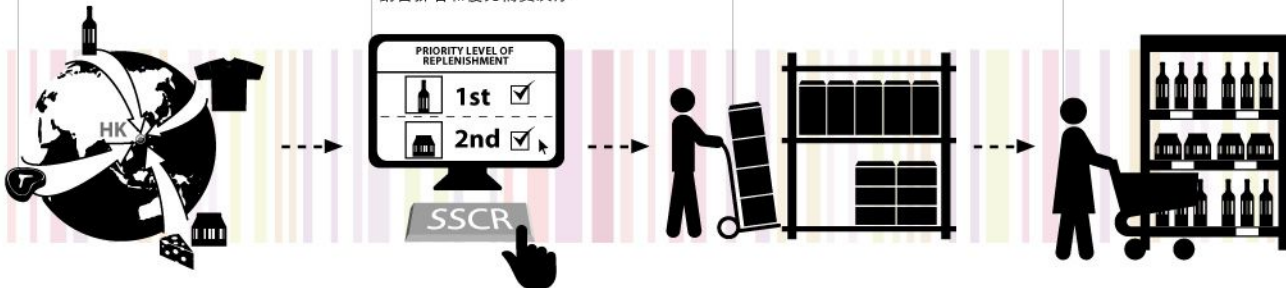
city'super透過SSCR方案，有效地改善庫存管理，並以快速補貨流程解決存貨不足的問題，提高貨架使用率。city'super預期推行SSCR的一年內，可將現有庫存量降低最少百分之五至十的水平。

city'super sources thousands of products worldwide increasing the complexity of warehouse management
city'super於世界各地採購逾千款產品，令倉庫管理變得複雜

city'super implemented GS1's SSCR solution resulting in categorizing product portfolio, establishing product ranking and priority level of replenishment
city'super採用香港貨品編碼協會的同步供應鏈補貨模式方案，為產品重新組合分類，建立產品銷售排名和優先補貨次序

This frees up warehouse space for slow-moving products to fast selling items
員工便可從原本放置慢流產品的倉庫騰空予暢銷貨品

It effectively optimizes on-shelf availability rate by delivering right products, at right stores, on right time
這方案有效優化庫存管理，適時把合適的產品推出至市場



PARKnSHOP & Wellcome 百佳超級市場及惠康超級市場



"Quality & safety is a top priority for all the items sold at A.S. Watson's retail outlets. The unsafe product prevention program is a unique business tool to quickly transmit unsafe product data into a retailer's barcode scanning system, enabling us to instantly block erroneous products from being scanned at POS level. It enhances supply chain efficiency and visibility while providing consumers higher level of quality assurance, which is indeed good news for the consuming public and our business operations," said Mr. Peter Johnson, General Manager, Quality, Food Safety & Regulatory Affairs, A.S. Watson Group.

屈臣氏集團品質、食品安全及規管市務總經理 Mr. Peter Johnson 指出：「屈臣氏集團旗下零售商店所銷售的產品均以品質及安全為先。『防預不安全產品項目』可協助零售商迅速地將不安全產品的資訊傳送到店內的銷售點系統，以即時啟動系統內的阻截銷售功能。這項目不單有助提高供應鏈的透明度與效率，同時亦對消費者提供了品質保證，實在對企業及顧客都帶來莫大的效益。」

Efficient and quick response to unsafe product alerts via GS1 BarCodes

使用GS1條碼

快速及有效地發放不安全產品預警訊息

GS1 STANDARDS USED 應用的GS1標準

Global Trade Item Number (GTIN) 國際貨品編碼
EAN / UPC BarCode EAN / UPC 條碼

SOLUTIONS APPLIED 推行方案

Unsafe Products Prevention Program (UPPP) 防預不安全產品項目
Food Safety Alert System via BarcodePlus¹ BarcodePlus¹支援的安全食品警報系統

CONSUMER BENEFIT 消費者效益

Preventing from buying and consuming unsafe products
防止消費者購入及使用不安全產品

ULTIMATE GOAL 最終目標



¹ BarcodePlus: A product and location information portal allowing users to access and share accurate data using GS1 Keys like GTIN and GLN via the internet and smartphone.
BarcodePlus: 透過GS1識別碼如國際貨品編碼及國際位置編碼，能使不同用戶經由互聯網及智能手機擷取並分享產品及位置資料的資訊平台。

BACKGROUND

PARKnSHOP and Wellcome, Hong Kong's two leading supermarket chains with a network of more than 200 stores, offer a wide variety of products to satisfy the daily needs of over ten million customers monthly.

PARKnSHOP is committed to provide the best value for money, the widest product choices that assures freshness & safe consumption, and tailored store services to meet the needs of varied customer segments.

Wellcome pledged to become the preferred supermarket chain by paying attention to customer's unique needs, providing a one-stop shopping convenience to the people of Hong Kong, and consistently delivering value for money through friendly service and affordable products.



market. As of mid 2012, the adoption of GTIN increased from less than 5% to about 20%. In addition to enabling effective communication between the government and industry, GTIN implementation also promotes a more efficient food safety management for the protection of consumers from buying and consuming unsafe products. In swiftly addressing the issue and minimizing human errors, PARKnSHOP and Wellcome seek to enhance the Food Safety Alert System of UPPP.

SOLUTIONS

To assist traders in identifying unsafe products in the market today via the Food Safety Alert System, GS1 Hong Kong initiated an automatic GS1 alert notification system in order to identify four key mapping results including "Barcode Not Hit", "Barcode Hit", "Invalid Barcode" and "Barcode Not Available".

Once GS1 Hong Kong receives the RAS form, the appended GTIN is mapped out using BarcodePlus to

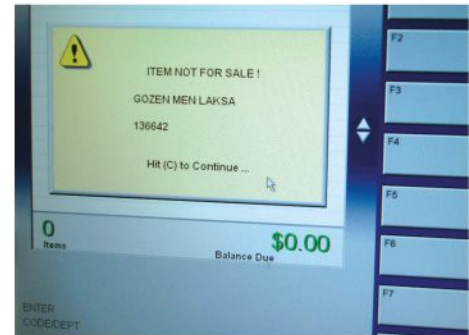
generate related internal inventory codes used by different supermarket chains. A standard GS1 electronic alert message with its correspondent mapping result is then transmitted to PARKnSHOP and Wellcome via email and SMS to notify them if an unsafe product is identified among their existing product portfolio. If a "Barcode Hit" message appears on the message, PARKnSHOP and Wellcome can immediately block the product at POS level, thus eliminating tedious and error-prone manual search of matching it with internal record.



CHALLENGES

In 2010, GS1 Hong Kong, with the support of the Centre for Food Safety (CFS), Hong Kong Food Council and major supermarkets, launched the Unsafe Product Prevention Program (UPPP) aimed at protecting public's safety and supporting traders in proactively putting a stop to the sale of or recalling any unsafe food products.

Recognizing the importance of Global Trade Item Number (GTIN), CFS added it in its Rapid Alert System (RAS) form to effectively identify unsafe products in the



BENEFITS

GS1's e-alert notification solution further enhances the management of unsafe products process to ensure to the protection of consumers from purchasing or consuming any perilous products. With this solution, it aids in prioritizing and accurately streamlining the processing time of identifying unsafe products by at least 30%.

背景

百佳與惠康是香港兩大超級市場，分店超過200家，每月為超過一千萬個消費者提供不同種類的產品，以滿足顧客日常生活的需要。

百佳超級市場致力為顧客提供最超值的貨品及多元化的購物選擇，並保證貨品安全新鮮；此外，旗下開設不同種類的店舖，以迎合不同顧客的需要。

惠康超級市場以心聆聽顧客的需要，力求成為消費者最喜愛的連鎖超市。其服務宗旨是為顧客提供優質及超值的貨品，令香港市民能享有一站式的購物便利。

挑戰

香港貨品編碼協會於2010年推出「防預不安全產品項目」，獲得食物安全中心、香港食品委員會及各主要的超級市場支持，旨在保障公眾安全及支援業界積極阻止不安全產品出售及回收有關產品。

為令零售商更有效及快速地識別不安全產品，食物安全中心於項目推出後，將獨一無二的國際貨品編碼加入快速警報系統表格內。至2012年中旬，快速警報系統內的产品條碼資料由最初少於

百分之五增至約百分之二十。這除了加快政府與業界的溝通外，更提升了食物安全管理的效率，有效阻止消費者購入及使用不安全產品。為進一步精簡通報回收的流程及減少人為錯失的機率，百佳及惠康尋求提升現時食品安全警報系統的方案。

方案

為回應上述挑戰，香港貨品編碼協會於現行的「防預不安全產品項目」上，推出一套自動化的GS1預警通報系統，並定出四個主要通報結果，包括「條碼不符合」、「條碼符合」、「條碼不正確」及「未有條碼提供」。

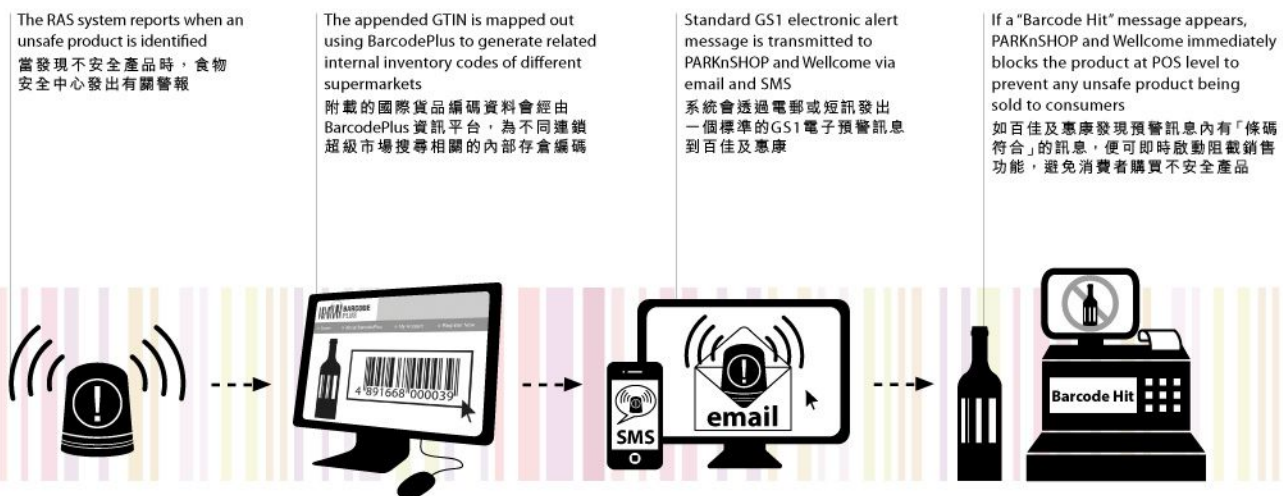
當香港貨品編碼協會接獲食物安全中心的快速警報系統表格後，其附載的國際貨品編碼資料會經由BarcodePlus資訊平台，為不同連鎖超級市場搜尋



相關的內部倉存編碼。該系統繼而會建立一個標準化的GS1電子預警訊息，連同上述其中一項通報結果即時以電郵與短訊方式發送予百佳及惠康。他們便可立刻知道現售貨品是否存有不安全產品。如百佳及惠康發現預警訊息內有「條碼符合」的訊息，便可即時啟動設於銷售點系統內的阻截銷售功能，更可避免因人手進行內部配對所可能導致的錯誤。

效益

GS1的電子預警通報方案進一步提升了不安全產品的管理流程，有效阻截消費者購入及使用有問題產品。這套方案協助業界更準確地查找不安全產品。據估計，查找速度可加快至百分之三十以上。



GS1 Hong Kong & GS1 US 香港貨品編碼協會及GS1美國分會



“To continuously win customers’ loyalty and sustain competitive edge in the dynamic global marketplace, suppliers serving major international retailers and brands must start taking advantage of the current Item Level Tagging adoption trend.”

「供應商若要贏取世界各地主要零售商與知名品牌客戶的信任，並維持其在全球市場的競爭力，必須緊貼及掌握單品無線射頻識別(RFID)標籤化的發展及趨勢。」

Apparel RFID Item Level Tagging from source to store taking off

啟動由來源地至零售點成衣單品 無線射頻識別標籤化

GS1 STANDARDS USED 應用的GS1標準

Electronic Product Code (EPC) 產品電子代碼

Electronic Product Code Information Services (EPCIS) 產品電子代碼訊息服務

SOLUTIONS APPLIED 推行方案

Item Level Tagging Enablement Program 單品標籤化啟動項目

ezTRACK™¹ 縱橫網™¹

BUSINESS BENEFIT 商業效益

ILT enables inventory tracking accuracy and efficiency, improved productivity which will contribute to increase in sales and streamline returns for the benefit of apparel supply chain stakeholders

單品無線射頻識別(RFID)標籤解決方案，為成衣供應鏈持份者帶來效益，不但能為其提供高效及準確的倉存追蹤資料，更有助提升生產量與銷售額及提高投資回報率

ULTIMATE GOAL 最終目標



¹ ezTRACK™: Cloud based EPCIS-standard traceability network that facilitates real-time visibility of goods and information flow from point of source to point of destination.
縱橫網™: 以雲端科技為基礎，並以產品電子代碼資訊服務為標準的追溯網絡，能提供由來源地至目的地之實時貨物流及資訊流的資訊透明度。

BACKGROUND

EPC-enabled RFID Item Level Tagging (ILT) continues to gather momentum worldwide today with multiple roll out chain-wide of major fashion brand owners and retailers. Major retailers in the US have indicated plans to aggressively implement ILT soon. Hong Kong and Southern China provinces are now among the leading fashion garments, accessories and footwear sourcing and production hubs in the world. In order to continuously win customers' loyalty and sustain competitive edge in the dynamic global marketplace, these suppliers serving major international retailers and brands must start taking advantage of the current ILT adoption trend.



Last year, GS1 Hong Kong teamed up with GS1 US to connect US retailers and brand owners with sourcing offices and garment manufacturers in Hong Kong and Southern China in the global supply chain. The collaboration was aimed at gearing up and providing stakeholders with the necessary knowledge, update on the latest ILT implementation trends, and market developments through knowledge sharing sessions, application showcases, formation of industry consortium and user groups, all to achieve the ultimate goal of enhancing apparel and garment industry's ILT capabilities.

CHALLENGES

Since ILT was introduced two years ago in the US, the apparel and general merchandise industries started moving beyond the barcode toward global implementation of EPC-enabled RFID

technology under the VICS Item Level RFID Initiative (VIRLI). The initiative established a course of action for the adoption of EPC-enabled RFID technology throughout the retail supply chain.

Industry leaders are now moving away from 'Slap-and-Ship' toward item-level tagging at the point of manufacture – known as "source-to-store tagging" in order to realize the real benefits of ILT for the entire value chain, including minimizing human errors, reducing overhead and labour costs, and preventing counterfeiting. Tagging has been moved upstream to the manufacturing side, making them ILT-enabled by assigning and managing EPC serialized numbers, as well as adding different tagging requirements and RFID label service bureaus to ensure the right information is encoded on the right product, deliver to the right place at the right time. This, however, creates a complex picture of multiple nodes of ILT information generation, capturing and sharing amongst the stakeholders – which today is a huge challenge to the apparel supply chain upstream and downstream.

SOLUTIONS

GS1 Hong Kong Item Level Tagging Enablement Program offers the following:

- **Brand Owner Item Level Tagging Compliance Enablement Program**
Onsite training will be provided to enable vendors to be ILT compliance, from numbering assignment, tagging requirements to implementation measures etc.
- **Item Level Tagging Serialization Management on ezTRACK™**
Serialized EPC numbers assignment and management via cloud based EPCIS infrastructure - ezTRACK™ ensures ILT tag data integrity and is flexible to support brand owners and label providers managed IT-based centralized serialization management approaches to meet different implementation requirements.
- **Supply Chain Electronic Proof of Delivery (ePOD) Subscription Service**
By subscribing to ePOD on ezTRACK™, stakeholders are able to obtain RFID label providers' work status, ILT label delivery data, points of origins of finished goods, order fulfillment information, and goods receiving information at the final destinations.

BENEFITS

Contract manufacturers will be able to comply with buyers' tagging requirements while order fulfillment and delivery information of product is made visible to trading partners hence lessen charge backs due to wrong deliveries, and minimize errors and returns. The electronic proof of delivery allows reconciliation of goods and final destinations thus, shorten the order-to-cash cycle between trading partners.

For RFID label service bureaus, the serialized EPC numbers are assigned and managed by ezTRACK™ ensuring that all EPC manager numbers are unique regardless which label providers the brands or retailers are working with from different locations and no duplication will be encoded.

For brand owners and retailers, the serial number management with different label providers and contract manufacturers is made easy regardless what management approaches they adopt. The availability of end-to-end ePOD information made possible by ILT allows them to address market needs timely and accurately.

背景

環顧今天，多家國際知名的服裝品牌及零售商，相繼在旗下的連鎖零售店使用以產品電子代碼為本的單品無線射頻識別 (RFID) 標籤，可見這個解決方案已逐漸受業界認同。事實上，美國的主要零售商正準備積極採用這個方案以提升業務效率。至於香港與南中國各省，現已發展成為世界上領先的時裝、服飾與鞋類採購及生產樞紐之一，供應商若要贏取世界各地主要零售商與知名品牌客戶的信任，並維持其在全球市場上的競爭力，必須緊貼及掌握單品 RFID 標籤化 (ILT) 的發展及趨勢。

去年，香港貨品編碼協會與 GS1 美國分會合作，與在香港及南中國地區設立採購公司及服裝生產線的美國零售商及品牌持有人商談協作，計劃透過知識分享環節、應用方案展示、組織業界聯盟與用戶小組，為相關的供應鏈持份者提供有關單品 RFID 標籤化的知識、市場發展資訊及最新行情，目的是協助成衣及服裝界使用單品 RFID 標籤方案以優化業務運作。

挑戰

兩年前，單品 RFID 標籤開始在美國盛行，成衣及採購業相繼透過 VICS 單品 RFID 標籤項目，由使用條碼過度至全球性採納以產品電子代碼為本的 RFID 技術。該項目包括一系列行動指引，目的是協助業界在零售業供單品標籤，實踐「由來源地至零售點標籤化」實務，目的是體現 ILT 為整體供應鏈帶來的真正效益，包括減人為錯失、減省人力資源與支出，以及阻截偽冒產品流入市場等。事實上，標籤化流程已流向供應鏈上游的生產線上。



生產線管理人員獲分配 EPC 序號後，會制定標籤化細則，確保 RFID 標籤外包服務供應商會為單品標籤編上準確的資料，並適時地把貨物運送到指定的地點。不過，上述程序牽涉到持份者之間一些既複雜亦包含多個層次的 ILT 數據生成、擷取及分享流程，對成衣供應鏈上下游的持份者來說是一個很大的挑戰。

效益

參與 ILT 項目的合約生產商將可成功配合買家的標籤化規範。他們可向貿易夥伴提供訂單履行及貨物付運的資料，以避免因付運出錯引起索償，同時亦可減低其他出錯的機會，免卻執行貨物回收的麻煩。此外，電子配送憑證亦可提高付運的準確性與效率，有助縮短訂單收款周期。

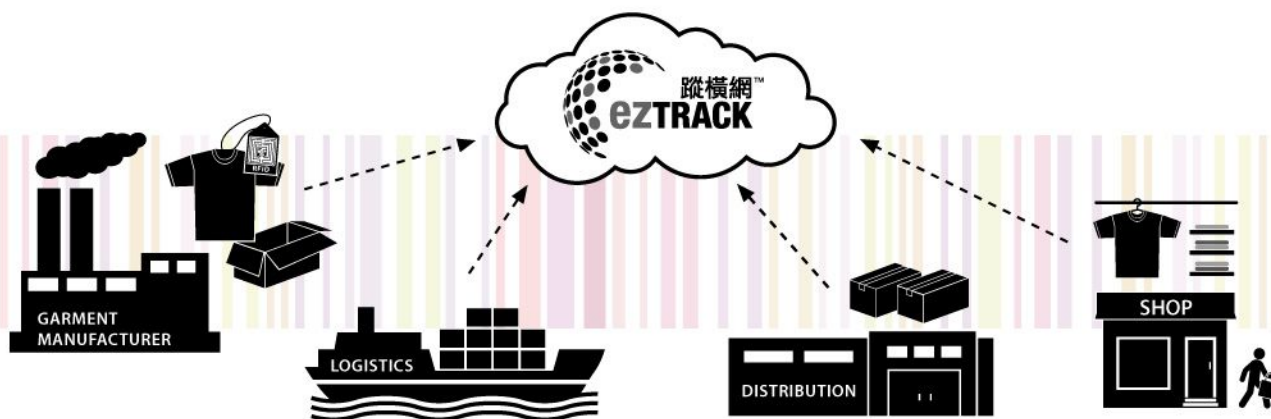
對 RFID 標籤服務單位來說，由於 EPC 序號經由縱橫網™ 分配及管理，故此，不管品牌持有人或零售商與那家標籤供應商合作，均可確保所有 EPC 管理單位代碼都是獨一無二，無法複製。

不論採納哪一套單品 RFID 標籤管理策略，使用序號管理方案正好讓品牌持有人及零售商有機會與不同的標籤供應商及合約生產商合作。點對點的電子配送憑證更有助貿易夥伴適時地獲得準確的市場資訊，迅速回應市場需求。

方案

香港貨品編碼協會單品標籤化啟動項目包括：

- 品牌持有人單品標籤規範化項目**
 協會為供應商提供實地培訓課程，內容包括序號編碼、標籤化細則及實踐程序等，協助供應商配合行業規範。
- 縱橫網單品標籤序列化化管理**
 透過以雲端科技為本的 EPC 訊息服務平台 - 縱橫網™ 為 EPC 序號進行編碼，可確保 ILT 標籤數據準確無誤，並有助品牌持有人及標籤供應商使用以資訊科技為本的中央序號化管理方案，以配合不同的標籤化規範。
- 供應鏈電子配送憑證訂閱服務**
 持份者可透過縱橫網™ 訂閱電子配送憑證，以獲取包括 RFID 標籤供應商工作狀況資訊、ILT 繳付運資料、成品來源地資料、訂單履行資料及收貨資料。



The widespread adoption of item-level RFID tagging allows trading partners to share the relevant information from source to store via ezTRACK™ efficiently and accurately. It enhances visibility along the supply chain that helps streamline receiving, replenishment, and inventory management for all parties. 隨著單品 RFID 標籤的廣泛應用，令貿易伙伴可透過縱橫網™，將產品的相關訊息，從源頭至零售點快速及準確地互享。這不單提高供應鏈的透明度，亦簡化了各持份者在收貨、補貨和庫存上的管理。

Hospital Authority Hong Kong 香港醫院管理局



"The Supply Chain Modernization (SCM) project has provided our pharmacy staff with an efficient means to track-and-trace the movement of the pharmaceuticals through our stores with new supply chain procurement and goods receipt processes supported by automation and modern technology," said Ms. S.C. Chiang, Senior Pharmacist, Chief Pharmacist's Office, Hospital Authority Hong Kong.

香港醫院管理局總藥劑師辦事處高級藥劑師蔣秀珠女士表示：「醫療藥物供應鏈現代化計劃為我們的藥劑部員工提供一個有效追蹤及追溯藥物流向的方法，使用了這個現代科技支援的方案後，供應鏈採購與收貨流程的出錯機會明顯降低。」

Rolling out Pharmaceutical Supply Chain Modernization Project

推出醫療藥物供應鏈現代化計劃

GS1 STANDARDS USED 應用的GS1標準

Global Trade Item Number (GTIN) 國際貨品編碼

Global Location Number (GLN) 國際位置編碼

Serial Shipping Container Code (SSCC) 貨運容器序號

GS1-128 BarCode GS1-128 條碼

SOLUTIONS APPLIED 推行方案

ezTRADE¹ 通商易¹

BarcodePlus² BarcodePlus²

BUSINESS BENEFIT 商業效益

Improving procurement, goods receipt and invoicing procedures by automating the manual processes, to assure that the right products of the right source are received on time

透過流程自動化改善採購、收貨及處理發票的流程，藉此確保藥房適時收到來自正確來源的正確藥物

ULTIMATE GOAL 最終目標



¹ ezTRADE: An industry-wide B2B platform that facilitates electronic transaction messaging via VAN and Web to support electronic ordering, invoicing and shipment notices.
通商易：一個經由VAN及互聯網以支援電子訂單、發票、貨運通知的跨業界商業對商業電子數據交換平台。

² BarcodePlus: A product and location information portal that allows users to access and share quality data using GS1 Keys like GTIN and GLN via the internet and smartphone.
BarcodePlus: 透過GS1識別碼如國際貨品編碼及國際位置編碼，能使不同用戶經由互聯網及智能手機擷取並分享產品及位置資料的資訊平台。

BACKGROUND

The Hospital Authority Hong Kong (HA) is the statutory body responsible in managing Hong Kong's public healthcare system. Under its auspices are 41 public hospitals and institutions, 49 specialist out-patient clinics and 74 general out-patient clinics. It has 27,000 beds and has served over 19.3 million patients from 2011 to 2012.

CHALLENGES

In the early 90's, HA considered automating its manual procurement process by adopting Electronic Data Interchange (EDI). In 1996, it started using GS1 Hong Kong's ezTRADE to communicate with their suppliers. With ezTRADE, HA places order to medical suppliers by providing essential procurement data, including specific information about the drugs per item, description, quantity, delivery date, purchase amount, and delivery location in purchase order (PO) form. The suppliers then deliver the goods to HA with delivery notes that are acknowledged by the pharmacy staffs. However, the process is not fully automatic since it still requires manual checking of the goods' lot number and expiration date, input the data on HA's IT system, stock the goods in the right shelf, and validate and submit paper-based invoice to the finance department.



SOLUTIONS

For better management on the procurement process, HA implemented Supply Chain Modernization (SCM) by using GTIN to identify every pharmaceutical product, GLN to represent every delivery location and a comprehensive set of EDI messages, including Purchase Order (PO), Purchase Order Response (POR), Advanced Shipping Notices (ASNs) and Invoice, with the suppliers. Using EDI POs, the suppliers now pack and label the ordered goods with SSCC on GS1-128 BarCodes. Prior to their delivery, the suppliers notify the HA with EDI

ASNs which contain SSCCs, GTIN, manufacturer name, country of origin, lot number and expiration date of the incoming goods. The GLN in the EDI represents the exact locations where the suppliers will deliver the items. The ASNs are received by HA daily and the pharmacy staff would refer to these ASNs to determine which supplier is delivering the goods. Once the goods arrived HA, they are validated against the corresponding ASNs, and the delivery is confirmed by scanning the SSCC labels. Finally, the goods data are automatically integrated into the HA IT system without human intervention.



The manual process of checking paper-based invoices from the suppliers is eliminated using EDI invoices which are automatically integrated into the HA IT system for validation and sent to the finance department for payment processing.

BENEFITS and POST PILOT REVIEW

The pilot was completed in June 2012, with 13 hospitals from 2 of the 7 clusters officially rolling out the SCM at the same time. The HA sees the SCM to enhance efficiency of their operation and has reduced the time spent by their staff in the entire process. "The SCM project has provided our pharmacy staff with an efficient means to track-and-trace the movement of the pharmaceuticals through our stores with new supply chain procurement and goods receipt processes supported by automation and modern technology," said Ms. S.C. Chiang, Senior Pharmacist, Chief Pharmacist's Office, Hospital Authority Hong Kong.

There were key findings during the post pilot review. First, although ezTRADE enhanced the procurement cycle between HA and their suppliers, the seamless use of ezTRADE requires the consistent and quality data of the pharmaceutical products between both parties, especially since the products are now identified by GTINs in the EDI messages. To prevent incurring additional cost and extra work to rectify when an irrelevant data appears during the procurement cycle, GS1 Hong Kong is proposing to synchronize all supply descriptions through BarcodePlus. This standard-based information portal enables buyers and suppliers to exchange standardized and synchronized trade item data.

Second, some pharmaceutical manufacturers only indicate the year and month of expiration on the packaging of their supplies, without specifying the date information. There is a confusion about the interpretation of such expiration information, as some would recommend the end of month but some would argue that it should be the beginning of the month. In the absence of exact day of expiration, HA suppliers now include "00" as the expiration day within the GS1-128 BarCode and EDI ASN in order to meet GS1 Standards requirements.

In order to avoid confusion and for operational purpose, it is recommended that the use before date of all pharmaceuticals in HA, if indicated in the format of MM / YY, will be made reference as use before the first day of the month. This new reference will ensure that the product is used well before the month of expiry of which it is referred to.

"It is indeed important that an exact expiration day of pharmaceutical products is indicated on packaging and follow the GS1 Standards to provide clear information for the whole healthcare industry. This prevents misunderstanding and unnecessary arguments and errors. Pharmacists and patients worldwide will benefit by adding this simple information on packaging," concluded Ms. Chiang.

背景

香港醫院管理局(醫管局)是一個法定機構，自1991年起負責管理香港的公共醫療服務，轄下包括41間公立醫院及醫療機構，49間專科門診診所及74間普通科門診診所。於2011至2012年間，醫管局合共提供27,000張病床，向超過1,930萬個病人提供有關服務。

挑戰

九十年代初期，醫管局開始考慮利用電子數據聯通(EDI)就人手採購流程進行自動化。1996年，醫管局正式使用香港貨品編碼協會的通商易服務與供應商交換訊息。局方透過通商易向藥物供應商送出訂單，同時把關鍵的採購數據傳送給對方，這些數據包括每件藥物的特定資料、藥物內容、數量、送貨日期、購買份量及收貨地點，而上述資料均會在採購訂單上清楚列明。供應商根據此份訂單把貨物送到醫管局後，局方的藥劑部職員便會在送貨單上作收貨確認。不過，上述流程並非完全自動化，因為部份工序仍須依賴人手執行，包括檢查貨物編號與到期日、把有關資料輸入醫管局電腦系統、為藥品入倉、核對發票及把紙本發票遞交至財務部。

方案

醫管局為了更有效管理其採購流程，決定推行供應鏈現代化計劃，透過國際貨品編碼識別每件藥品，及利用國際位置編碼為每個付運地址編碼，並使用電子數據聯通提供的訊息組合如採購訂單、採購訂單回覆、預先付運通知及電子發票與供應商溝通。供應商則使用電子數據聯通接收採購訂單，並會為包裝中的貨品貼上儲存了貨運容器序號的GS1-128條碼。而在付運之前，供應商會透過電子數據

聯通向醫管局發送預先付運通知及一系列資料，包括相關的貨運容器序號、國際貨品編碼、貨品所屬生產商、來源地、貨品編號及貨品到期日，傳送的資料亦包括國際位置編碼，供應商將按照這個編碼所代表的位置把貨品付運至指定的地點。事實上，醫管局每日會收到由不同供應商發出的預先付運通知，藥劑部職員便會根據這些電子訊息的資料，確認送往醫管局的藥品來自那個供應商。藥品運抵

醫管局後，相關的職員亦會按照預先付運通知核對來貨，並透過掃描貨運容器序號標籤確認收貨。最後，貨品的資料會被整合到醫管局的資訊科技系統之中，整個過程完全自動化。

醫管局使用了電子數據聯通的電子發票後，所有採購資料會自動整合到醫管局的資訊科技系統以作核對，並傳送到財務部進行付款安排，事實上，以上流程已成功取締人手檢查紙本發票的工序。

效益及試點完成報告

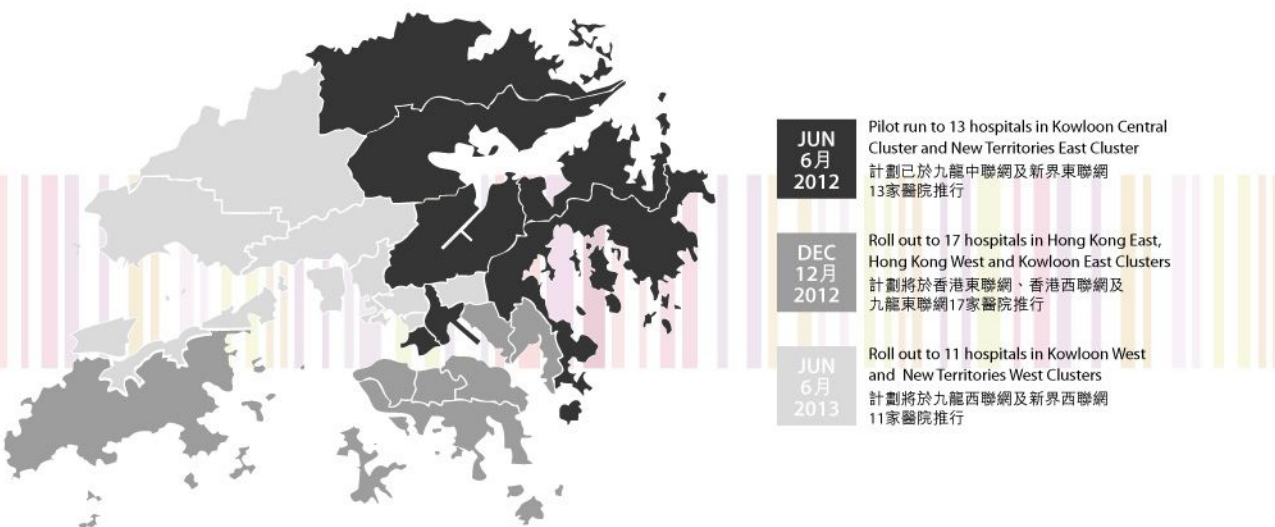
試點計劃最終於2012年6月完成，醫管局七個聯網中有兩個聯網合共13家醫院於同一時間推行了供應鏈現代化計劃。醫管局表示，該計劃有效提高運作效率並減省了員工執行有關流程的時間。香港醫院管理局總藥劑師辦事處高級藥劑師蔣秀珠女士表示：「醫療藥物供應鏈現代化計劃為我們的藥劑部員工提供一個有效追蹤及追溯藥物的流向的方法，使用了這個現代科技支援的方案後，供應鏈採購與收貨流程的出錯機會明顯降低。」

以下是試點計劃完成後的分析結果。首先，通商易服務雖有效優化醫管局與供應商之間的採購周期，但由於有關資料已經以電子數據聯通訊息內的國際貨品編碼進行識別，故此，若要無間斷使用通商易服務，確保流程以有效率的方式進行，雙方必須持續交換詳細及準確的藥物資料。另外，為避免於採購周期發現無關的資料時需要調配人手進行修正並為此帶來額外開支，香港貨品編碼協會現正建議參與方透過以標準為基礎的產品資料平台BarcodePlus把供應商的資料同步化，透過這個平台，買家及供應商便可藉著電子數據聯通交換標準化及同步化的貨品資料。

其次，部份藥物製造商在藥物包裝上只提供藥品到期的年月份，而沒有提供正確日期。由於有關的資料沒有指明到期日是月初或月底，這樣將會造成混亂。有見及此，醫管局已經在GS1-128條碼及電子數據聯通預先付運通知的到期日資料內加入00，以配合GS1標準的規格。

基於運作上的需要，同時為了避免造成混亂，醫管局所有藥品的到期日，如以年月份顯示，都必須標示為每個月的第一日。這樣便可確保有關藥品會於到期月份前使用。蔣秀珠女士總結：「藥品包裝上必須印有詳細的到期日，並須按照GS1標準提供清楚的資料，以供醫護界同業參考，藉此避免產生誤會及無謂的爭議與錯失，讓全球的藥劑師及病人受惠。」

Hospital Authority Pharmaceutical Supply Chain Modernization Project Roadmap 醫院管理局醫療藥物供應鏈現代化計劃路線圖



Hong Kong Baptist Hospital 香港浸信會醫院



"The traceability system significantly enhances surgical safety. IT cum BarCode technology enables accuracy and efficiency in data capture, saving time, space and environment. With advances in program development, through real-time data logging, senior management can closely monitor the performance of equipment (washers and sterilizers) used for decontamination, as well as staff productivity," said Dr Raymond Chen, CEO of Hong Kong Baptist Hospital.

香港浸信會醫院行政總監陳崇一醫生指出：「這套追溯系統大大提高了手術的安全度。資訊科技結合條碼技術有效提升擷取數據的效率及準確程度，亦能節省時間和空間，並有助環境保護。藉着電腦程式，高級管理人員可透過掌握實時數據，嚴密監控清潔及消毒設備的運作狀況，亦可瞭解員工的工作效率。」

Enhancing patient safety through electronic surgical instruments tracking system

透過電子追蹤手術儀器系統 加強保障病人安全

SOLUTIONS APPLIED 推行方案

Surgical Instruments Traceability System build on BarCode Technology
以條碼科技建構的手術儀器追溯系統

BUSINESS BENEFIT 商業效益

Ensure the provision of safe surgical instruments through efficient and effective tracking solution, by eliminating the need to discard an unknown but could be sizable lot of instruments when an untraceable few of which have been contaminated by some unremovable pathogens such as prions of CJD. As a result, this track-and-trace system has protected patient from risk of cross-infection as a result of surgical operation

藉着一套高效益的手術儀器追蹤系統，排除了在小量儀器被難以消除的致病體(如引致瘋牛症之病原體)污染後，被逼棄置大堆未知但可能是大數量的手術儀器的需要，確保外科手術儀器的安全性。藉此追蹤與追溯系統便能保護病人免受因手術引致的交叉感染

ULTIMATE GOAL 最終目標



BACKGROUND

Hong Kong Baptist Hospital (HKBH), established in 1963, is a private hospital with 850 beds and around 2,000 employees and another 2,000 associate doctors. Hospital covers most of the specialties, such as surgical, medical, pediatric, maternity, gynecology, ophthalmic, skin, ENT, urology, endoscopy, minimally invasive surgery, nuclear medicine and radiation therapy & oncology.



The hospital is continuously striving for safe and high quality patient care of international standard. In 2010, HKBH got full accreditation in the Australian Council on Healthcare Standards (ACHS) scheme. This pilot scheme was organized by the HKSAR Government with an aim to improve the quality and safety of hospital service through works in four domains: patient focus, effective leadership, continuous improvement and evidence of outcomes.

CHALLENGES

Mad Cow Disease (CJD) is an incurable and fatal illness that affects human nervous system. It has triggered healthcare concerns globally because CJD can be transmitted if a surgical device contaminated with prions is used on another patient, as prions on surgical devices cannot be

totally eradicated. Patients are in danger of being infected due to contaminated surgical devices in the absence of effective tracking record. In an attempt to comply with local legislative requirements, HKBH has developed its own Standard Operating Procedure (SOP) in surgical instrument track-and-trace.

SOLUTIONS

HKBH has developed its own surgical instrument traceability system by scanning Patient Episode Number and Sterilization Batch Number in a 1-D BarCode; and the description of Surgical Instruments in a 2-D DataMatrix BarCode. This simple set up accords full traceability on what surgical device had been used on which patient; which washer / sterilizer had been used; and who packed the device.



A new off-site facility for reprocessing reusable surgical devices will be established in Fanling, New Territories in 2013. A more comprehensive and advanced system will be setup in collaboration with Getinge International (Asia) Ltd that adopted GS1 Standards for track-and-trace.

All the above data on instrument track-and-trace, as well as device usage and equipment data logging are stored in the database. The new system requires every staff who handles any surgical device to scan her personal 1-D BarCode to identify herself in every stage of production process.

BENEFITS

Measurable ROI: Patient safety, efficiency and sustainability

"This new surgical instrument traceability system will increase visibility of our supply chain. Senior management can export real-time report of the decontamination cycle and also analyse staff productivity," said Dr Raymond Chen, CEO of HKBH.

Continue high quality patient care service

HKBH is considering how to optimize this system's functionality when the new centre commences operation. "We're exploring the possibility of deploying the system on each individual surgical device down to item-level with GS1 Standards to further enhance patient safety, and fulfil our goal of providing high quality patient care," Dr Chen concluded.

背景

香港浸信會醫院(浸會醫院)，在1963年創立，是擁有850張病床的私家醫院，員工約2,000名，並有2,000多位聯繫醫生。該院提供多種專科醫療服務，包括外科、內科、兒科、婦產科、眼科、皮膚科、耳鼻喉科、泌尿外科、內視鏡檢查、微創外科、核子醫學、放射治療及腫瘤科。

浸會醫院致力為大眾提供安全、優質，及符合國際水準的醫療護理服務。該院於2010年通過「澳洲醫療服務標準委員會」醫院認證計劃的考核並成功獲得認證。該先導計劃由香港特區政府主辦，透過以下四個範疇作考核醫療機構的表現，包括以病人為本的政策、領導層管理能力、醫療服務的持續改善，以及改善服務後的具體成效，藉此提高醫療服務的質素及其對病人安全的保障。

挑戰

瘋牛症是一種影響人類神經系統的致命疾病，屬不治之症。瘋牛症引起全球極大的關注，主要是因為沾上瘋牛症病原體的手術儀器，難以完全消毒；若在手術中使用該等儀器，相關的病人便會受到感染。醫院若缺乏可靠的追蹤紀錄，病人便要面對著因接觸受感染的手術儀器而染上瘋牛症的可能。為配合香港特區政府

制定的衛生條例，浸會醫院推行了一套院方特定的標準操作程序，以追蹤及追溯手術儀器的使用流程。

方案

浸會醫院推行了一套院方特定的手術儀器追蹤與追溯系統，透過掃描病人的住院編號及消毒批次號的1-D條碼，以及儲存手術儀器資料的2-D DataMatrix條碼，便能詳細追蹤手術儀器的去向，包括病人身上使用了那一種手術儀器、使用過那種清潔及消毒設備、以及執行包裝程序的員工的詳細資料。

浸會醫院將於2013年在新界粉嶺設立一座用作處理用後手術儀器的嶄新設施，並會與使用GS1標準進行追蹤

及追溯程序的潔定國際(亞洲)有限公司合作，建設更全面及先進的系統。



上述追蹤與追溯手術儀器使用流程的所有資料，包括儀器使用紀錄及醫療設備資料紀錄，均會被儲存在數據庫內。在新系統的運作下，處理過任何手術儀器的員工，必須於進行每個工序前透過系統掃描自己的1-D條碼以確認身份。

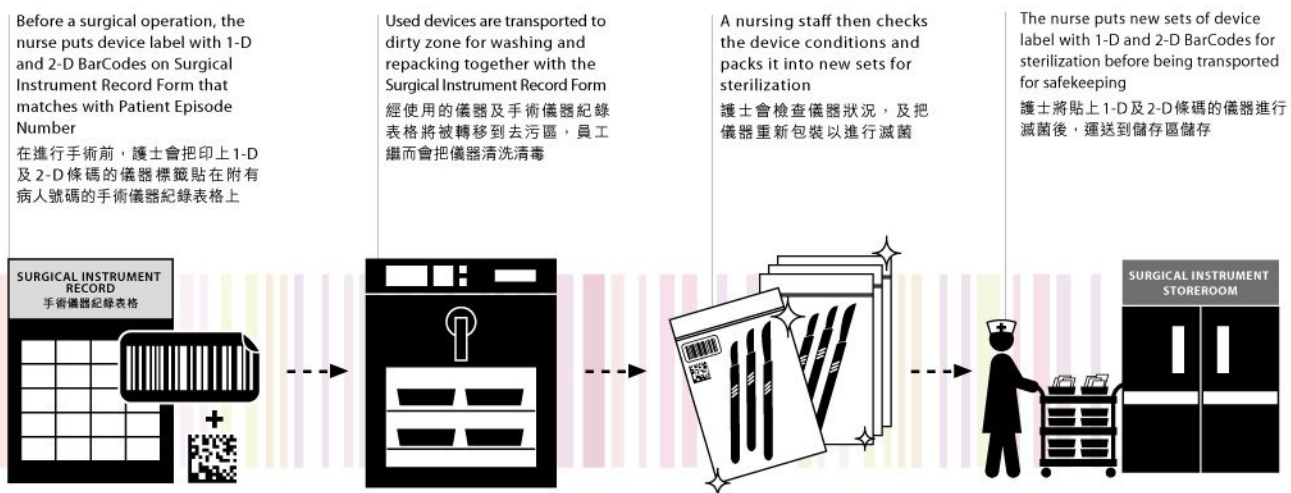
效益

可估量的投資回報率：病人安全、操作效率及可持續發展能力

浸會醫院行政總監陳崇一醫生指出：「這套嶄新的手術儀器追溯系統將有助提升浸會醫院供應鏈的透明度。有了這套系統，高級管理人員更可以匯出實時的消毒周期報告，及分析員工的工作效率。」

維持優質醫療護理服務

浸會醫院計劃在中心建成後進一步優化上述系統的功能。陳崇一醫生表示：「我們本著優質服務的精神，正繼續探究以GS1標準，將追溯目標指向單件手術儀器，以進一步保障病人安全。」



GS1 & GS1 Hong Kong GS1及香港貨品編碼協會



“CASSANDRA supports businesses by sharing data among partners in the supply chain that it provides insight in supply chain performance and cost reduction can be reached by minimizing administrative and planning errors.”

「CASSANDRA為供應鏈夥伴成功建立分享數據的管道，協助企業提升供應鏈透明度，及推動企業改善供應鏈表現，藉減低行政及規劃錯誤以節省成本開支。」

Common Assessment and Analysis of Risk in Global Supply Chains (CASSANDRA)

全球供應鏈風險評估與分析計劃

GS1 STANDARDS USED 應用的GS1標準

Electronic Product Code Information Services (EPCIS) 產品電子代碼訊息服務

SOLUTIONS APPLIED 推行方案

Business information pipeline enabled by standard-based infrastructure
透過以標準為本的基礎建設 建立商業資訊管道

BUSINESS BENEFIT 商業效益

More efficient and effective security and controls in cross border trades
提高跨境貿易的安全和監控效率

ULTIMATE GOAL 最終目標



BACKGROUND

The increasing flow of containerized cross-border trade prompted businesses and governments to find efficient and effective means to ensure full supply chain control and security. As part of the European Commission's Seventh Framework programme for security, it created CASSANDRA in line with businesses and government organizations' initiatives to develop supply chain security frameworks in improving resiliency and the development of security standards and procedures.



CHALLENGES

There are potential supply chain risks unique for both business and government organizations. Businesses are more concerned in addressing operational risks due to possible disruptions, while government agencies' main aim is in protecting the public due to security risks involved in incoming trade.

Several documents are required for trade transaction including clearance with Customs and risks assessment. While different trading parties have a subset of the supply chain information, none of them has full end-to-end visibility and reliability of some data. With CASSANDRA, a data-sharing concept was developed that acts as a

data pipeline and connects entities. It gathers and distributes data according to predefined conditions to provide supply chain partners and government authorities with accurate, reliable and timely data. However, the sheer number of parties involved with varied requirements and IT systems makes the concept complex and become a reality.

SOLUTIONS

CASSANDRA is addressing the interoperability issue by combining heterogeneous systems of all parties involved using state-of-the-art IT innovations. It creates virtual information pipeline that enables data-sharing and crawling, and bridging the gap between existing supply chain solutions instead of developing a totally new platform. The pipeline consists of interoperable solutions, common set of exchange



information, communicating in an open, flexible and standardized manner, the GS1 EPC Information Services (EPCIS) infrastructure.

All trading partners provide their transaction-related data in the pipeline, which extracts both commercial and container tracking data and makes them visible to other partners and government agencies in the chain for use in evaluating operational and security risks.

BENEFITS

CASSANDRA will improve efficiency and effectiveness for government agencies by developing a new approach for risk assessment, taking the AEO (Authorized Economic Operator) concept to a new level. The new Risk-Based auditing approach will help Customs to effectively assess business processes and procedures and ensure a secured supply chain. This helps Customs to focus more on high-risk flows for higher hit rate and greater effectiveness of security related government inspections.

CASSANDRA will also facilitate EU and global trade. The Risk-Based approach will enhance corporate social responsibility while the data-sharing concept will improve product and societal safety. It also brings possibilities to improve insights on CO2 footprints and fair trade, among others.

CASSANDRA supports businesses by sharing data among partners in the supply chain and thus reducing data entry. The improved visibility that it provides insight in supply chain performance and cost reduction can be reached by minimizing administrative and planning errors.

背景

企業使用貨櫃箱裝運進行跨境貿易的趨勢愈來愈普遍，有見及此，業界與各國政府竭力尋求更有效的方法，以監控及保障整體供應鏈的安全。全球供應鏈風險評估與分析計劃(CASSANDRA)是歐盟第七期科研架構計劃的一部份，其理念與目標跟業界及政府的方向同出一轍，旨在開發一個能有效監控供應鏈的保安架構，用以提升保安標準與流程的質素及彈性。

挑戰

業界與各國政府目前面對著不同的供應鏈風險。對業界來說，首要的考慮是如何面對供應鏈運作出現中斷狀況，至於各國政府關注的主要事項，是對外貿易所引發的保安風險，及如何在出現狀況時保障公眾的安全。

各國在進行貿易時必須處理的事項，包括貨物清關及風險評估，當中自然牽涉到一些重要文件。不過，在任何一宗交易當中，不同的貿易夥伴只會掌握整條供應鏈的部份資料，換言之，沒有一方會掌握百分百對點對點供應鏈透明度及獲得所有可靠的資料。CASSANDRA提供了一個數據分享的理念，可讓不同的參與方透過數據管道進行互動並建立聯繫。此管道能收集各種數據，並透過前設的原則向

供應鏈夥伴及各國政府部門發放準確、可靠及適時的資料。可是由於參與方數目太多，而其對數據的要求及使用的電腦系統各有不同，要實踐上述的理念並不容易。

方案

CASSANDRA利用最先進及創新的技術，整合所有參與方的電腦系統以解決互連性的問題，最後設計出虛擬資訊管道，協助參與方抓取資料及進行數據分享，並有效地融合不同的供應鏈解決方案，

省卻了重新開發資訊平台所需的時間。此資訊管道包含了多個具互運性的方案以及一組通用的交換數據，透過開放、具彈性及標準化的格式，即GS1的產品電子代碼訊息服務架構進行數據傳遞。

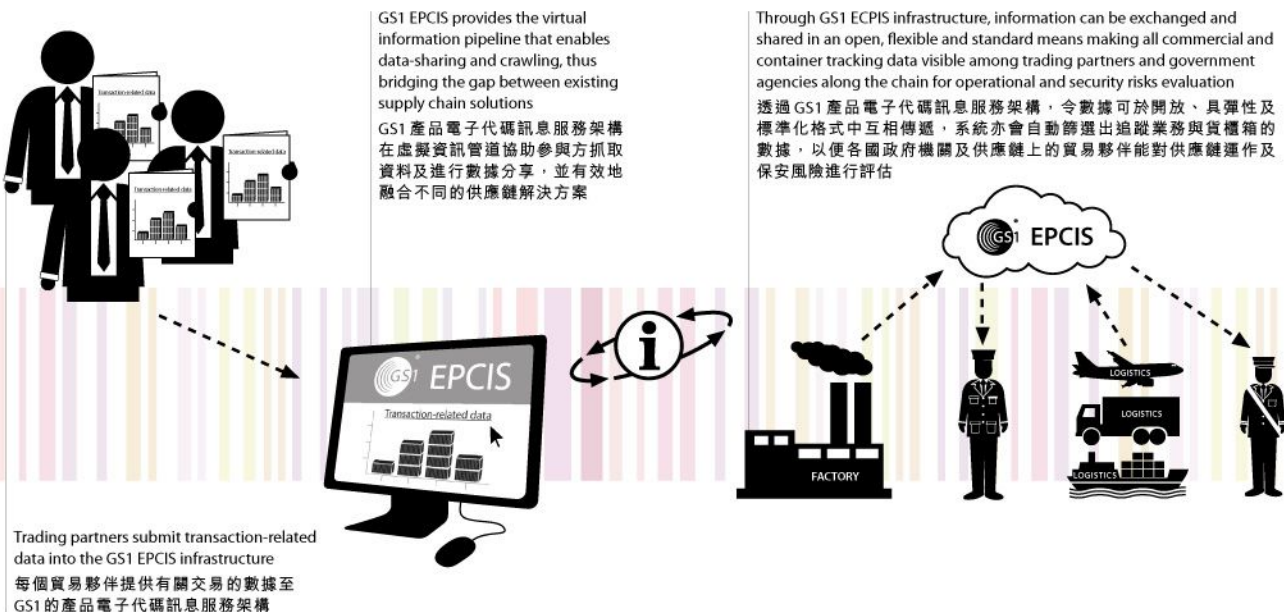
虛擬資訊管道收集了每個貿易夥伴所提供與其交易有關的數據後，便會自動篩選出追蹤業務與貨櫃箱的數據，以便各國的政府機關及供應鏈上的貿易夥伴能賴以評估供應鏈運作及保安上的風險。

效益

CASSANDRA為各國政府提供了一個風險評估的全新方案，並把合格經濟營運商(AEO)的概念提升至更高的層次，大大改善政府機關的辦事效率。海關部門透過以風險為本的審核方案，能更有效地評估商業流程及保證供應鏈的安全，同時能更集中及準確地截查有問題的貨流，更有效地為政府執行與保安有關的檢驗。

CASSANDRA促進了歐盟發展與全球貿易。以風險為本的審核方案，能有效加強企業的社會責任感，而數據分享理念則有助保障產品及社會的安全，同時可以提高各界對碳足跡與公平貿易的認知。

CASSANDRA為供應鏈夥伴成功建立分享數據的管道，有助推動業界的業務發展，企業亦可藉此減省輸入數據的時間。CASSANDRA亦有助企業提升供應鏈透明度，及推動企業改善供應鏈表現，藉減低行政及規劃錯誤以節省成本開支。



GS1 Hong Kong 香港貨品編碼協會



“The Supply Chain Visibility Platform offers goods flow visibility information enabling Hong Kong logistics industries to enhance the competitiveness by offering high value and quality services.”

「供應鏈透明化平台體現貨物流向資訊透明化，以完善其營運流程，有助香港的物流業透過更優質的服務提升競爭力。」

Cross border supply chain visibility across Guangdong, Hong Kong and Asia

廣東省與香港及亞洲之間的跨境供應鏈透明化項目

GS1 STANDARDS USED 應用的GS1標準

Electronic Product Code Information Services (EPCIS) 產品電子代碼訊息服務

SOLUTIONS APPLIED 推行方案

A feasibility study on the value propositions of an effective cross-border visibility platform
 高效跨境透明化平台價值主張可行性研究

BUSINESS BENEFIT 商業效益

Cross-border supply chain visibility information enhances the competitive edge of Hong Kong logistics industry to offer quality and value added services

跨境供應鏈透明化有助香港物流業提升服務質素
 成功為客戶創優增值 以提高市場競爭力

ULTIMATE GOAL 最終目標



BACKGROUND

As a logistics hub in the region, Hong Kong enjoys its strategic geographical location and ties with Mainland China. As China enters into free trade agreements (FTA) with Association of Southeast Asian Nations (ASEAN) countries, a change in the current regional trading arena is imminent. As such, previous trade regulations require consigned products be transported directly between Mainland China and ASEAN countries for tariff waivers.

Under China's 12th 5-year plan, it re-assures Hong Kong to continue its role as a logistics hub as well as encourages it to pursue its aspiration to transform into a regional distribution center for high value cargo. In order to maintain its position as premier transshipment hub and gain the International traders' confidence that it has what it takes to meet the world's growing needs and concerns including providing efficient cross-border process, supply chain visibility and certificate of origin, it is vital for Hong Kong to continuously institute reforms to further improve its logistics capability.

CHALLENGES

Currently, Asian governments have realized the value of adopting the latest technology to achieve supply chain visibility. In 2010, APEC proposed a concerted Supply Chain Visibility initiative to facilitate trade and create values for supply chain stakeholders amongst APEC economies.

Nonetheless, the challenges of realizing Supply Chain Visibility are not only technical in nature but include economic and operational feasibility considerations. For any such endeavor to succeed, a viable business model with proper value proposition and revenue model is highly critical.

SOLUTIONS

While there are different ways to interpret supply chain visibility, the study defines cross-border supply chain visibility as "the capability to provide real-time information of cargo content, associated business data and movement from

manufacturers to delivery destination over borders of administrative regions". The study investigated the importance, initiatives and current status of supply chain visibility and review how an effective cross-border supply chain visibility platform (SCV) can bring value to shippers, logistics companies and government agencies through pilot case studies.

Group discussions among industry stakeholders, government agencies and secondary data collection concerning the demands, infrastructure readiness and new supply chain initiatives with respect to Hong Kong, China and Asia were conducted. Four business models were suggested in the study based on

- 1. Customs Inspection Reduction;**
- 2. Supply Chain Uncertainty Reduction;**
- 3. Transshipment Certification; and**
- 4. Authorized Economic Operators (AEO)**

Operational and technical feasibility studies were done to assess the SCV implementation hurdles in real-life business and operation environments from the levels of internal enterprise, enterprise to governments, cross-border government to government. The

technical feasibility study revealed the technical requirements for implementation, including the difficulties on the physical level in handling of goods movement, system integration and control. It also showed that data sharing for both the industry stakeholders and government agencies may need the adoption of e-seals and SCV information platforms.

Two pilot case studies are identified to further supplement the operational and technical feasibility of SCV with finished goods export from a Southeast Asian country, to be transited in Hong Kong to Guangdong, China. The case studies will reveal the impact supply chain visibility in logistics operations and how the business value can be realized through the right business model.



BENEFITS

To customs:

An SCV platform provides a supplementary information channel for customs to validate clearance information from shippers or logistic service providers. As a result, Customs is able to process and inspect cargoes accurately and efficiently.

To shippers / buyers:

Cross-border SCV is important to buyers/importers especially for those high value or time-sensitive products as it facilitates faster and more transparent customs clearance on short cross-border route such as China-HK-Taiwan route.

To logistics service providers:

With cross-border SCV, HK forwarding companies can have visibility on cargo movements as soon as they leave manufacturing facilities which can help to eliminate the weak links. As such track and trace information from SCV platform can enhance the competitive edge of the Hong Kong logistic industry to offer high quality / value services rather than competing on price. It can also foster tight security for high value goods handled by local carriers.

背景

香港一直與中國內地保持緊密聯繫，並享有地理上的優勢，是區內的物流業樞紐。中國與東盟簽定自由貿易協定之後，對區內的貿易造成很大影響，根據現時的貿易法規，由中國內地直接運往東盟成員國的貨品都毋須繳付關稅。

按照中國第十二個五年規劃，香港會繼續維持其在區內的物流樞紐地位，國家亦會積極鼓勵香港轉型成為區內的高價貨品分銷中心。事實上，香港若要保持它作為主要轉運中心的地位，必須持續推行相關的改革，提升物流業的競爭力，向世界證明它有能力配合市場需求，能有效執行跨境貨運流程、確保供應鏈透明度，及可提供產地來源證，以贏取國際貿易夥伴的信心。

挑戰

亞洲各國政府現時已充分了解供應鏈透明化的重要性，並懂得使用最新技術體現這個目標。2010年，亞太經濟合作組織推出了一個供應鏈透明化項目，目標是促進區內貿易及為亞太經濟合作組織成員國供應鏈持份者創優增值。

然而，要體現供應鏈透明化，不但要顧及技術的問題，亦必須考慮經濟上及運作上的可行性。要達到這個目標，必須找到一個有適當價值主張及以有效盈利方式營運的商業模式。

方案

由於各界對供應鏈透明化的定義有不同的詮釋，此項研究已把跨境供應鏈透明化定義為 - 能提供實時貨櫃載貨資料、相關業務數據、及提供由生產線至付運終點站整個跨境貨運過程的流向資料。該研究主要就供應鏈透明度的重要性、項目及狀況進行分析，及就高效跨境供應鏈平台

如何透過試點計劃為付運商、物流公司及政府機關創優增值作出詳細的回顧。

業界持份者與政府機關特別就香港、中國內地及亞洲在供應鏈透明化項目的行業要求、基建可行性，以及最新的供應鏈項目展開討論，並就上述課題進行資料搜集。最後歸納出四個業務運作模式，並以下列四個主要範疇為基礎：

1. 減省海關檢查時間
2. 減低供應鏈不明狀況的出現
3. 轉運證明書
4. 香港認可經濟營運商計劃

為了深入研究企業在實際業務及操作環境上體現上述目標所遇到的問題，協會進行了運作程序及技術可行性研究，以了解在企業內部、企業與政府之間，以及各國政府之間存在有關實踐供應鏈透明化的障礙。技術可行性研究結果顯示，實踐該計劃必須克服一些技術要求，包括如何處理貨物流、怎樣進行



系統整合與監控等問題。研究亦顯示業界持份者與政府機關在分享數據上需要使用電子封條及供應鏈資訊平台作技術支援。

除了運作程序及技術可行性研究外，整個解決方案還包括了兩個試點計劃。按照計劃，參與方會把一批完成貨品由一個指定的東南亞國家運送至香港再轉運至中國廣東省，目標是了解供應鏈透明化對物流運作流程帶來的效益與影響，並研究如何透過合適的營運模式體現相關的商業價值。

效益

海關：

供應鏈透明化平台為海關提供了一個數據渠道，有助他們核對由付運商及物流服務供應商提供的通關資料，如此一來，海關便能以更準確及有效的方式處理及檢查入境貨物。

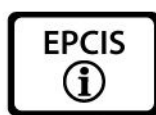
付運商/買家：

跨境供應鏈透明化進程對買家及出口商來說相當重要，特別是針對高價及講求時效性的貨物而言。透過供應鏈透明化進程，由中國、香港及台灣等短程跨境路線的通關手續將變得更快及透明。

物流服務供應商：

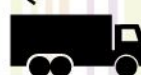
透過供應鏈透明化進程，香港的貨運代理公司可於貨物運離生產線時便能掌握其流向，體現貨物流向資訊透明化，以完善其營運流程。供應鏈透明化平台提供的貨品追蹤與追溯資訊，有助香港的物流業透過更優質的服務而非便宜的收費提升競爭力，及協助本地航空公司加強對高價貨品實施的保安措施。

An eSeal is attached on every container's door frame to prevent smuggling and cargo loss
每個貨運容器皆附上電子封條監控，以防止走私和貨物損失



Hong Kong Customs

EPCIS provides supplementary information channel for Customs to validate clearance information and improve risk assessment
產品電子代碼訊息服務提供了一個資訊平台，讓海關獲得通關的補充資料作清關資料驗證，提升風險評估



China Customs

Shippers and logistics service providers in Asia provide information on the cargo content and relevant business data into the standard-based data pipeline (EPCIS) before shipment
於付運前，亞洲區付運商及物流服務供應商提供貨運容器內的貨物內容及相關的業務數據訊息至以標準為基礎的數據管道（產品電子代碼訊息服務）

This improves overall Customs' efficiency by allowing the goods to quickly pass through without any further delay
這提高了整體海關的運作效率，令貨物可快速通關，無需停檢

What is GS1 Standards?

GS1 標準是甚麼？



The GS1 System of Standards is a set of global standards that enable the unique identification of all trade items, processes, services, assets, companies and locations at any point in the supply chain. As a global language for efficient business, GS1 Standards enable companies of all sizes to identify, capture, and share information throughout the global value chain.

GS1 標準是一套全球性標準，可用作識別供應鏈上的所有貨品、流程、服務、資產、企業及任何位置。作為一套能提高業務運作效率之全球性商業語言，GS1 標準可有效協助不同規模的企業識別、擷取及分享在全球價值鏈上的資料。

COMPANY / LOCATION 公司/位置

Global Location Number (GLN): is used to identify any locations and legal entities such as a company in the world in a unique way.

國際位置編碼：用作識別一個實體位置或法定的單位，例如是世界上某家公司的位置。

e.g.例：(410) 4891668000008

PRODUCT 產品

Global Trade Item Number (GTIN): is used to uniquely identify trade items, which are products and services that are priced, ordered, or invoiced at any point in the supply chain, whether at the checkout, in a warehouse, in an electronic catalogue.

國際貨品編碼：用作識別於供應鏈上經過標價，被訂購及被記錄在發票上的貿易貨品及服務，而該貿易單可位處於收銀處、倉庫、或是電子目錄內。

e.g.例：4 891668 326698

LOGISTICS 物流

Serial Shipping Container Code (SSCC): is used to identify individual logistic units such as cartons, pallets, or air cargo containers of trade items.

貨運容器序號：用作識別物流單元，例如是貨箱、貨板或運載貿易單位的空運貨櫃箱。

e.g.例：(00) 048916680000000015

Global Identification Number for

Consignment (GINC): is used to identify a logical grouping of logistics units that are assembled to be transported together under one transport document.

全球托運識別碼：用作識別一組具邏輯性的物流單元，該組單元經組合並根據一張運送單據付運。

Global Shipment Identification Number

(GSIN): is used to identify a grouping of logistics units that comprise a shipment referencing a dispatch advice and / or Bill of Lading (BOL).

全球貨運識別碼：用作識別一組物流單元，該物流單元附有待運通知及/或提單。

ASSETS 資產

Global Returnable Asset Identifier (GRAI): is used to identify a reusable package or transport equipment of a certain value such as a gas cylinder, pallet or a crate.

全球可回收資產識別碼：用作識別循環再用的包裝或具一定價值的交通器材，例如是氣瓶、貨板或條板箱。

Global Individual Asset Identifier (GIAI):

is used to uniquely identify fixed assets of any value within a company such as office equipments, computers, vehicles and equipments.

全球個體資產識別碼：全球個體資產識別碼乃用作識別企業內具任何價值的不動產，例如是辦公室設備、電腦、交通工具及器材。

Global Document Type Identifier (GDTI):

is used to identify a document by type, such as proof of ownership, invoice and graduate certificate.

全球文件類別識別碼：用作識別文件類別，例如是擁有權證明書、發票及畢業證書。

SERVICES 服務

Global Service Relation Number (GSRN):

is used to identify a service relationship between a business and a client, such as club membership, loyalty programs and hospital admissions.

全球服務關係識別碼：用作識別企業及客戶的服務關係，例如是會所會籍、忠誠計劃及入住醫院服務。



CAPTURE 擷取

GS1 Data Carriers
GS1 資料載體



SHARE 分享

GS1 Communication Standards
GS1 傳遞訊息標準

The GS1 System of Standards has an entire portfolio of Data Carriers, with different kinds of media that can hold GS1 ID Keys and attribute data. GS1 Data Carriers include:

GS1標準包含一個完整的資料載體組合，當中有不同的媒體可以載附GS1識別碼及相關的資料。GS1資料載體包括：

BARCODES 條碼

EAN/UPC BarCode: is a barcode on a trade item scanned at any retail point-of-sale (POS) anywhere in the world for which is longest-established and most widely used.

EAN/UPC 條碼： EAN/UPC 條碼是一種印於貨品上的條碼，可於世界上任何一個地方的零售點被掃描，亦是歷史最長及最被廣泛使用的條碼。

e.g.例：



GS1-128 BarCode: is the gold standard for logistics as it can carry all GS1 ID Keys, and variable information like serial numbers, expiration dates and measures.

GS1-128 條碼： 是物流業的最高標準，能載附所有GS1識別碼以及序號、到期日與量度單位等可變資訊。

e.g.例：



GS1 DataBar™: its symbol can carry more information and identify smaller items than the current GS1 BarCode Symbol which can also be scanned at retail point-of-sale.

GS1 DataBar™ 條碼： 比起現行的GS1條碼，此條碼能載附更多數據、識別更細小的物件，同時亦可於零售點被掃描。

e.g.例：



GS1 DataMatrix/QR code: is a 2-D (two-dimensional) barcode that allows a wealth of information to be encoded in a very compact space as compared with conventional barcodes.

GS1 DataMatrix/QR碼： 是一種二維條碼，相對於傳統的條碼，它能在極小的空間儲存大量的數據。

e.g.例：



(01)04891668326689

EPC-ENABLED RFID TAGS 產品電子代碼/無線射頻識別標籤

GS1 EPC/RFID tags: use Radio Frequency Identification (RFID) technology to encode GS1 ID Keys in the GS1 Electronic Product Code (EPC).

GS1 產品電子代碼/無線射頻識別標籤： GS1 產品電子代碼/無線射頻識別標籤運用無線射頻識別技術將GS1識別碼編碼於產品電子代碼內。

The Electronic Product Code (EPC): is an emerging way to globally identify physical objects, loads, locations, assets, and other entities whose use is to be tracked with Radio Frequency Identification (RFID) tags or barcodes via the EPC Network.

產品電子代碼： 透過無線射頻識別標籤，或經產品電子代碼網絡以條碼來識別在全球範圍內的實物、貨件、位置、資產及其他單位。

MASTER DATA 主數據

GS1 Global Data Synchronization Network (GDSN): is an internet-based, interconnected network of interoperable data pools and the GS1 Global Registry® that enable companies around the globe to access and exchange standardized and synchronized supply chain data with their trading partners securely in real-time.

GS1 全球數據同步網絡： 是一個以互聯網為基礎，與互通數據池及GS1全球註冊資料庫聯繫著的網絡，讓世界各地的企業可以實時並安全地互相交換標準化及同步化的供應鏈資料。

TRANSACTIONAL DATA 交易數據

GS1 eCom: provides two complementary standards, GS1 EANCOM® and GS1 XML, to enable the electronic transaction exchanges to be smoothly compatible, between companies and also across borders and across industries.

GS1 電子商貿： 為顧客提供兩個息息相關的標準，包括GS1 EANCOM®及GS1 XML，可讓公司與公司之間進行暢順無阻的電子交易，此流程甚至能以跨境與跨行業的方式進行。

PHYSICAL EVENT DATA 具體事件數據

Electronic Product Code Information Services (EPCIS): is an interface standard for exchanging event-related information to track progress of objects as they move through the supply chain.

產品電子代碼訊息服務： 是一個電腦介面的標準，可讓企業交換與物件事態有關的資訊，從而追蹤物件在供應鏈上的位置。

The Global Language of Business

環球貿易的共通語言

Enhancing Visibility, Efficiency, Safety and Quality

GS1 System of Standards GS1標準系統	GS1 BarCodes	GS1 eCom	GS1 GDSN
Functions 功能	Global Standards for Identification and Data Capture 應用於自動識別及數據擷取的全球標準	Global Standards for Electronic Business Messaging 應用於電子商業訊息傳遞的全球標準	Global Network for Data Synchronization 應用於全球數據同步的網絡
GS1 Hong Kong Solutions 香港貨品編碼協會解決方案	<div data-bbox="300 611 416 712">  </div> <p>GS1 BarCode numbers registration and administration GS1條碼編號之登記及管理</p> <p>Supporting local businesses with the implementation of GS1 BarCode System and the BarCode quality assurance 為本地企業提供GS1條碼系統及條碼質素保證的支援</p> <div data-bbox="300 999 512 1070">  </div> <p>BarcodePlus A product and location information portal allowing users to access and share quality data using GS1 Keys like GTIN and GLN via the internet, mobile and smart kiosk 透過GS1識別碼如國際貨品編碼及國際位置編碼，讓不同用戶經由互聯網、手機及智能資訊站擷取並分享產品及位置資料的資訊平台</p> <p>Global Electronic Party Information Registry (GEPIR) 全球電子公司資料庫 A global online directory of suppliers, with information of over 1 million companies worldwide, creating boundless business opportunities 一個儲存了世界各地逾一百萬個供應商資料的全球性網上資料庫，為業界帶來無界限的商機</p> <p>Global Traceability Conformance (GTC) 全球可追溯性準則</p> <p>Global Traceability Standard (GTS) 全球追溯標準</p>	<div data-bbox="770 611 911 712">  </div> <p>ezTRADE 通商易</p> <p>An industry-wide B2B platform facilitating electronic transaction messaging via EDI and Web to support electronic ordering, invoicing and shipment notices 一個經由EDI及互聯網以支援電子訂單、發票、貨運通知的跨業界商業對商業電子數據交換平台</p>	<p>GS1 HK DataPool</p> <p>GS1 HK Datapool GS1 HK 數據池</p> <p>A certified product information synchronization platform that interoperates with the GS1 Global Registry® enabling exchange of synchronized, accurate and up-to-date product information between buyers and suppliers 連接GS1全球註冊資料庫並獲國際認可的資訊平台，讓買家及賣家可適時互換準確無誤及最新的產品資料</p>
Benefits 效益	<ul style="list-style-type: none"> • Enabling sharing of quality data 協助合作夥伴分享有用的數據 • Optimizing operational efficiency 優化業務運作效率 	<ul style="list-style-type: none"> • Performing Orders to Cash effectively and globally 有效地在全球執行由訂單至匯款之商貿流程 	<ul style="list-style-type: none"> • Accelerating B2B communication 加快商業對商業的通訊速度

提升透明度、效率、安全度與品質

GS1 EPCglobal®

Global Standards for RFID-based Identification and Traceability
利用全球標準以無線射頻識別為基礎的產品識別及追溯技術



ezTRACK™
縱橫網™

Cloud-based EPCIS-standard traceability network enabling real-time visibility of goods and information flow from point of manufacturing to point of destination

以雲端科技為基礎，並以產品電子代碼資訊服務為標準的追溯網絡，能提供由來源地至目的地之實時貨物流及資訊流的透明度



A product authentication solution enabling supply chain e-pedigree visibility

一個產品驗證的解決方案，提供供應鏈電子系譜透明度

Cold Chain Management Solution 冷凍鏈管理方案

Traceability network enabling visibility of goods (such as food and pharmaceuticals), information flow, and thermo-humidity status from point of source to point of destination

能提供能擷取及分享如食品及藥物的有關產品溫度、濕度、時間及位置的實時數據之解決方案

Warehouse Management System 倉庫管理系統

Inventory management network to capturing in-stock, out-stock, and stock take information

用作擷取入倉、出倉及盤點紀錄的倉存管理網絡

Item Level Tracking Solution 單件貨品追蹤方案

Providing manufacturer-to-store supply chain visibility by item-level EPC/RFID tagging

為業界提供由生產商至零售店舖的單件貨品供應鏈透明度

- Achieving supply chain visibility and efficiency
提升供應鏈透明度與效率
- Enhancing anti-counterfeiting for brand integrity
協助業界打擊偽冒產品 保護品牌信譽
- Assuring product quality with real-time monitoring control
透過實時監控確保產品質素

GS1 B2C

Mobile Application for Connecting Consumer
流動電話應用程式促進消費者連繫



Consumer Connect
物密哪

A direct mobile communications platform for brand owners to provide trusted product information and interact with consumers anytime, anywhere

直接的流動通訊平台，讓品牌提供可信賴的產品資訊，並隨時隨地與消費者互動連繫

- Feature product values effectively and speed up the time to market
突出產品價值 加快產品上市

If you are a member of GS1 Hong Kong and would like your success story with the use of GS1 Standards being showcased, please contact us at **(852) 2861 2819** or email to **info@gs1hk.org**.

若閣下是香港貨品編碼協會的會員
並欲分享貴公司運用GS1標準的成功實務個案，
請致電 **(852) 2861 2819** 或
電郵至 **info@gs1hk.org** 與我們聯絡。



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