

## APEC GDS Pilots 2015 亞太經合組織全球數據標準先導計劃 2015

Supply Chain Connectivity -  
Cornerstone to APEC's Trade Facilitation  
供應鏈連接 - 促進亞太經合組織貿易基石



### Project overview

APEC (Asia Pacific Economic Cooperation) is looking to reduce transaction costs in trade facilitation and expand its work to cover other associated transport, communication and related constraints behind the border costs.

The APEC Supply-Chain Connectivity Framework reinforces the need for approaching supply chain connectivity and simplifying trade facilitation across APEC. In this context, improving trade logistics through enhanced supply chain connectivity has emerged as a significant factor contributing towards increased trade facilitation.

The Supply Chain Connectivity Framework has identified a number of chokepoints impeding the smooth flow of goods throughout the APEC region. It is anticipated that widespread use of Global Data Standard (GDS) in various supply chains in the APEC region will help overcome variations in cross-border standards and regulations for movement of goods.

### Challenges

**Prior to the adoption of GDS, there was limited visibility in cross-border shipments and translocations with the following challenges:**

- 1 • A lack of transparency and awareness of regulatory issues** related to logistics, coupled with a lack of awareness and coordination among government agencies on related policies, as well as an absence of single contact point or champion agency on logistics matter
- 2 • Inefficient clearance of goods at customs** and a lack of coordination among border agencies
- 3 • Cumbersome customs documentation and procedures** including those for preferential trade
- 4 • Variations in cross-border standards and regulations** for the movement of goods, services and business travellers
- 5 • A lack of regional cross-border customs-transit arrangements**

### 項目概覽

亞太經合組織正研究如何減少貿易便利化中涉及的交易成本，並且擴大其工作範圍，以涵蓋邊境費用背後的其他有關運輸、通訊及相關限制問題。

亞太經合組織供應鏈互通框架加強了整個亞太經合組織的供應鏈互通性及簡化貿易便利化的需要。在這方面，通過加強供應鏈互通性以改善貿易物流，已成為促進貿易便利化的重要因素。

供應鏈互通框架認定了一些窒礙了為亞太經合組織地區貨運流通的阻塞點。預料全球數據標準(GDS)在亞太經合組織地區中各個供應鏈的廣泛使用，將有助於克服變化多端的跨境標準及貨物移動規則。

### 挑戰

在採用全球數據標準(GDS)之前，跨境運輸和搬移的透明度皆有限，面對的挑戰如下：

- 1 • 透明度和認知度不足：**主要就影響物流運作的監管程序而言。政府部門之間對於相關政策缺乏認知及協調外，亦沒有就物流事務設立單一聯絡點或主理部門
- 2 • 海關貨物清關效率低落，**邊境部門之間缺乏協調
- 3 • 海關文件及其他程序過於繁重：**包括實施優惠貿易的程序
- 4 • 跨境標準和法規未趨劃一：**窒礙貨品、服務及商務旅客的流動
- 5 • 欠缺區際跨境轉關的安排**



## Solution

Two pilot projects were conducted in the following routes:

1. **Wine exported from Australia and imported to Hong Kong, China;** and
2. **Boxed beef exported from Australia and imported to the USA**

### Wine

Commenced in October 2015 the product identification on wine pilot was utilized at the carton level, pallet level and finally to container level. Orders were received via email from the Hong Kong importer. The goods were transported through port of Adelaide, Australia to Hong Kong port via Singapore port.

In this pilot, the transport event messages were supplemented to the existing transactional data which enabled real time visibility to all stakeholders, using EPCIS integrated supply chain platform.

A 3<sup>rd</sup> party logistics (3PL) company organised all clearances for the shipment which included electronic interface with the Australian Customs and Border Protection Service Integrated Cargo System to receive a cleared Export Declaration Number (EDN) for the shipment. Due to the vessel swapping in Singapore port, GSIN was also added to identify the shipment grouping of the containers for tracking and identification.

### Boxed beef

The supply chain pilot involved product from the meat processor in Queensland, Australia, transported through the Port of Brisbane to the Port of Philadelphia, USA via the transshipment in New Zealand. Boxed beef was packed at the meat processing plant based on orders placed through EDI (Electronic Data Interchange) messaging. On arrival at the Port of Philadelphia, the importer liaised with the meat clearance centre and organised the transportation to 3PL cold storage facility in New Jersey for grading, USDA/FSIS inspection and storage prior to distribution.

## Benefits

### 1 • Improved visibility

The supply chain visibility of wine and boxed beef were increased from 35% to 73% and from 43% to 93% respectively.

### 2 • Enhanced efficiency

100% Delivered In-Full, On-time was achieved for wine project. The impact of missing or damaged ship marks was reduced for the boxed beef project.

### 3 • Encouraged innovation

Supply chain information obtained from the visibility platform could facilitate government agencies to conduct risk management.

### 4 • Promoted product integrity

Track and trace of products along the entire supply chain helped to guarantee product authenticity and manage product quality.

## 解決方案

亞太經合組織在以下兩條路線開展先導計劃：

1. 從澳洲出口並進口到中國香港的葡萄酒；以及
2. 從澳洲出口並進口到美國的盒裝牛肉

### 葡萄酒

於2015年10月開始，先導計劃將葡萄酒的產品辨識用於紙箱，再延伸到卡板和集裝箱。香港的入口商通過電郵接收訂單，貨物經澳洲阿德萊德港、新加坡港到達香港港口。

是次先導計劃中，運輸活動訊息補充了現有交易數據的資料，利用產品電子代碼訊息交融的供應鏈平台，令所有參與者都獲得實時的透明度。

第三方物流公司組織了所有貨物清關，包括與澳洲海關和邊境保護服務集成貨物系統的電子接口，以接收出口貨物獲批准的出口報關單號(EDN)。基於在新加坡港口進行船隻交換，計劃亦使用了全球貨運識別碼(GSIN)，以識別用於跟踪和識別的集裝箱的裝運分組。

### 盒裝牛肉

供應鏈試驗也包括來自澳洲昆士蘭的肉類處理商，並經過布里斯班港，經新西蘭轉運到美國費城港。根據電子數據交換(EDI)信息，肉類處理工廠會為盒裝牛肉進行包裝。到達費城港時，進口商會與肉類清關中心聯絡，並安排運輸到新澤西的第三方物流設施，於分銷前進行等級分類，美國農業部(USDA)/食品安全及檢驗局(FSIS)檢核及存儲。

## 效益

### 1 • 改善透明度

葡萄酒及盒裝牛肉的供應鏈透明度分別由35%提升至73%及由43%提升至93%。

### 2 • 提升效率

葡萄酒計劃達成了100%的完全按時運送(DIFOT)。就盒裝牛肉計劃而言，亦減低了船舶標記丟失或損壞帶來的影響。

### 3 • 鼓勵革新

由追溯平台獲取的供應鏈資訊可促進政府機構進行風險管理。

### 4 • 推動產品完整性

整條供應鏈的追蹤追溯可幫助保障產品真實性和管理產品品質。

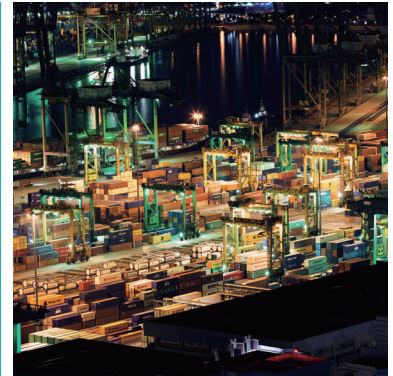
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## APEC GDS Pilots 2016 - 17 亞太經合組織全球數據標準先導計劃 2016-17

Strengthen Supply Chain Connectivity through GDS  
靈活使用全球數據標準 加強供應鏈連接



### Project Overview 計劃概覽

Following the successful implementation of Global Data Standards (GDS) in two trade routes in 2015, a new round of pilot projects (2016 GDS Pilots) is set to further examine how the application of GDS can improve the visibility and efficiency of the supply chain.

2015年，全球數據標準先導(GDS)計劃成功於兩條貿易路線開展。而新一輪先導計劃(2016 GDS先導計劃)將繼往開來，順勢而為，進一步觀察GDS如何提升供應鏈的透明度及效率。

### Project Scope 計劃範圍

The 2016 GDS Pilots are conducted to explore the benefits and costs of applying GDS at the product level, specifically:

1. Fresh asparagus from Peru to the US
2. Fresh and frozen durian from Malaysia to China and Hong Kong
3. Tequila from Mexico to the US

2016 GDS 先導計劃旨在探索從產品層面上應用GDS所帶來的好處和成本效益，分別為：

1. 從秘魯出口到美國的新鮮蘆筍
2. 從馬來西亞出口到香港和中國之新鮮和冷凍的榴蓮
3. 從墨西哥出口到美國的龍舌蘭酒

“We recognise that the ongoing work programme to minimise differences in standards and conformance. We look forward to further progress in the development and promotion of standards and conformance to facilitate trade and support the digital economy, including those in ICT and emerging technologies.”

「我們認同此持續性的工作項目有效將不同的標準和合規性差異程度減至最低，並期待在制定和推廣標準及合規性方面能夠取得進一步進展，促進貿易和支持電子經濟，包括資訊及通訊科技和新興技術。」

APEC Ministers Statement on  
Trade Facilitation – 20 May 2017  
亞太經合組織部長對貿易便利聲明  
- 2017年5月20日







## Solution

Three tasks are carried out to identify the impact of GDS on each supply chain. They include:

- To conduct baseline survey to identify the existing extent of supply chain visibility.
- To determine key performance indicators (KPIs) associated with each measure of efficiency, visibility/traceability, risk management/integrity, responsiveness, collaboration, and innovation.
- To identify and evaluate the impact of GDS on each supply chain based on the submitted reports from GS1 offices.

The three pilot projects utilised GDS at several levels including Serial Global Trade Item Number (SGTIN) to each single product item, Serial Shipping Container Code (SSCC) at the carton level, Global Shipment Identification Number (GSIN) carrying the information on the entire shipment, Global Location Number (GLN) etc.

## Benefits

The 2016 GDS Pilots showed how GDS can improve supply chain visibility on three different trade routes and their respective tangible benefits as follows:

- 1. Better tracking and sharing of relevant information to public and private stakeholders**
  - Asparagus pilot: savings of USD 16,500 yearly as a result of less time and resources used by exporter for searching and consolidating information from shipping processes and temperature measurement
  - Decrease in costs for all parties involved
- 2. Faster and more accurate capturing of products information shortening the time required for regulatory compliance**
  - Asparagus pilot: reduction in truck reception time by 20% and assembly time for air dispatch by 50%.
  - Tequila pilot: adoption of RFID had increased efficiency in reading speed of products contained in a pallet and reduced operating time by 30%
- 3. Prevent detention of products and improved exceptions management**
  - Time spent at customs clearance due to incomplete documentation resulting in detention. Overall, less time and effort were needed on checking product related information.
- 4. Improvement in supply chain integrity**
  - Every scanned barcode including SGTIN were captured onto the EPCIS platform, providing specific information on every scanned item. The chance of fraud and counterfeit are lowered because of easier detection, still further analysis is required.

## 解決方案

計劃開展了三項工作，以辨識GDS於每個供應鏈的成效，工作包括：

- 進行基線調查，研究現存供應鏈於各持份者單位上的透明度
- 採用表現指標(KPIs)，監察每個步驟的效率、透明度/可追溯性、危機管理/完整性、反應、協調情況及創新程度
- 根據GS1各地辦事處所提交的報告，辨識及評估GDS於每個供應鏈的成效

三個先導計劃均於不同層面上採用GDS，當中：全球貿易貨品編碼序號(SGTIN)應用於單件貨品辨識；貨運容器序號(SSCC)應用於卡板辨識；全球貨運識別碼(GSIN)提供整個付運狀況的資料；還有全球位置編碼(GLN)等均有助促進貿易便利化。

## 效益

2016 GDS 先導計劃提升了三條貿易路線的供應鏈效率，而它們的實際成效為：

- 1. 更有效追蹤相關資料，並輕易將資料予公眾及私人持份者分享**
  - 蘆筍先導計劃：獲得每年16,500美元的成本效益。由貨運流程至溫度控制，出口商得以減省當中搜尋和整合資料的時間及資源
  - 節省所有參與者的成本
- 2. 更快更準確地擷取產品資訊，縮短遵從法規所花的時間**
  - 蘆筍先導計劃：減少20%貨車輪候時間，爭分奪秒，讓空運時間得以增加多達50%
  - 龍舌蘭酒先導計劃：採用RFID能增加效率，有助更快讀取卡板內的產品資料，同時亦減少30%的運作時間
- 3. 防範產品滯留及改善例外管理**
  - 提供文件不足，會引致海關報關程序變得冗長，令產品因而滯留。不過，整個先導計劃實行以後，審查產品資料即變得更快捷，當中的工作量亦得以省卻不少。
- 4. 推動產品完整性**
  - EPCIS平台會記錄所有經掃描的條碼—包括SGTIN，並提供掃描產品的特定資訊。由於驗證產品資料變得越加容易，假貨和冒牌貨就更難以威脅商家。不過整個情況仍有待觀察，再作進一步的分析。

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