APMEN GO SMART with Global Data Standard & ezTRACK
The onslaught of COVID-19 pandemic has severely impacted international supply chains. Planning to strive for on-shelf availability of goods is something that has become an increasingly important issue. As an initiative of our Smart Port development, the use of GDS and ezTRACK platform has significantly improved sea freight visibility by providing smart connectivity with other ports, with reduced cost and increased efficiency, helping our clients better plan and ensure on-shelf availability of their products.

About the Organisation 機構簡介

Asia-Pacific Model E-Port Network (APMEN) was launched at the 22nd APEC Economic Leaders Meeting (AELM) in November 2014, as a regional cooperation initiative to promote trade facilitation and supply chain connectivity. In August 2015, APMEN Operational Center (AOC) was set up in Shanghai. So far, APMEN has 11 members from 11 APEC economies.

2014年11月，亞太經營組織第22屆經濟領袖會議(AELM)成立亞太示範電子口岸網絡(APMEN)，旨在促進貿易便利化和供應鏈連通性的區域合作計劃。2015年8月，APMEN運營中心(AOC)在上海成立，至今APMEN有來自11個APEC經濟體的19個成員。

Background 背景

As more than 80% of all intercontinental cargo uses sea freight transport, sea freight visibility is very important. However, maritime mode is often regarded as “black box” and highly unreliable, which in turn affects planning, especially during disruptions like when the COVID-19 pandemic happens. Therefore, visibility of supply chains is most vital.

Built on the success of Visualisation of Sea Freight Logistics Phase 1 project, the Phase 2 initiative aimed to assist APEC governments to mitigate 2 major chokepoints: 1) Lack of coordinated border management and underdeveloped border clearance and procedures, as well as SMEs access to Global Value Chains (GVCs); 2) Inadequate quality and visibility of sea / air freight data which led to inability to access transportation infrastructure and services.

By focusing on critical sea freight data exchange between port operators in the APEC region, it sought to use GS1 Global Data Standards (GDS) for enhanced visibility, integrity and transparency of e-Ports and cross-border trade.

Sea freight是全球逾8成以上洲際貨運的方式，所以航運物流的透明度非常重要。然而航運的「黑盒操作」模式很不可靠，不時影響供貨等計劃，特別是疫情等亂象來之時更有如暗子摸象，所以供應鏈透明度十分關鍵。

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GS1 standards used or solution(s) / service(s) applied

- Global Data Standards
- ezTRACK
- Electronic Product Code Information System (EPCIS)

應用的GS1標準或方案/服務

- 全球數據標準
- 躍橫網
- 產品電子代碼訊息服務 (EPCIS)
**Phase 2 Operation Structure 第二階段運作架構**

*Participating Ports 參與口岸*  
- China 中國  
  - Shanghai 上海口岸  
- China 中國  
  - Xiamen 廈門口岸

*Multiple EPCIS Platforms 不同EPCIS平台*  
- GS1 China Distributed EPCIS Platform  
  - GS1 中國分佈式EPCIS平台
- GS1 HK ezTRACK  
  - GS1 HK '蹌橫網'
- GS1 China Distributed EPCIS Platform  
  - GS1 中國分佈式EPCIS平台

*Participating Ports 參與口岸*  
- Australia 澳洲  
  - 1-stop
- Hong Kong, China 中國香港  
  - OnePort
- Singapore 新加坡

*Sea Freight Data Flow 海運數據流*  
- Data transmission method 數據傳輸方法  
  - Automated data capture based on unified EPCIS standard and data interfaces among participants.

**Solutions 解決方案**

APMEN and GS1 has been leading the implementation work that included automated data capture, distributed databases, and further development of standards in the sea freight sector. The project also included a greater number of stakeholders from the ports (container terminal operators) of Shanghai, Xiamen, Hong Kong China, Singapore, and Sydney.

With increased complexity, multiple EPCIS platforms were applied. GS1 Hong Kong’s ezTRACK was used for efficient data exchange by OnePort in HK, and the distributed platforms newly developed by GS1 China were used by Shanghai and Xiamen ports in China. In this way, privacy and security of data are guaranteed, while the platforms can still be used as public platforms and data transfer centers by all participants.

With the use of GDS, the project found improved and more reliable data sharing, reduction in cost and increased efficiency, optimised operation procedures in the sea freight cross-border supply chains processes. Please read https://bit.ly/3LoSavH for details.

**Benefits 效益**

1. Strengthened supply chain integrity by enabling better control of product statuses
2. Enabled better planning and improved risk management by having greater knowledge of the product status
3. Enhanced efficiency by automating data exchange in shorter time and at lower cost, with more effective operations of border agencies.

APMEN及GS1攜手帶領推行計劃。計劃預期在航運界別中實踐自動化儲存數據、分散式數據庫，及加深標準應用。同時涉及更多持份者，包括來自上海、廈門、中國香港、新加坡及悉尼的港口及貨碼頭發運商。

透過計劃涉及複雜，需應用多個基於EPCIS的平臺：OnePort在本地使用GS1 HK的‘蹌橫網’，而在上海及廈門港口則使用由GS1中國新研發的分散式平臺，作做既可確保數據的私隱及安全，同時所有參與者都能利用兩個開放平台作數據傳遞之用。


**Benefits 效益**

1. 透過提升產品實況監控，增強供應鏈的一致完整性
2. 有效掌握產品情況，達致更佳規畫及風險管理
3. 自動化的數據交換能加快流程、節省成本、改善效率，提高口岸管理處理質素

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**Solutions 解決方案**

APMEN和GS1一直領導實踐工作，包括自動化數據捕獲、分布式數據庫，以及進一步發展標準於海運貨物運輸行業。項目亦包括港區（貨櫃碼頭經營者）的上海、廈門、中國香港、新加坡及悉尼等港口。

隨著複雜性增加，多個EPCIS平臺被應用。GS1香港的ezTRACK用於OnePort在香港的高效數據交換，而GS1中國新研發的分布式平臺則被上海和廈門港區使用。這樣做既保證了數據的隱私和安全，同時平臺仍可作為開放式平臺和數據轉換中心供所有參與者使用。


**Benefits 效益**

1. 加強供應鏈的整體連貫性，提升產品狀態的控制能力
2. 增進計劃及風險管理，並增加對產品狀態的了解
3. 提升效率，透過自動化數據交換，縮短時效並降低成本，有效提升與邊境機關的業務

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