APMEN
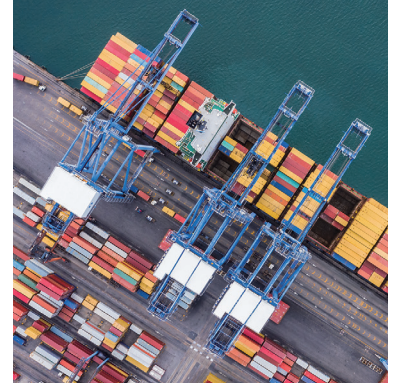# GO SMART
with Global Data Standard & ezTRACK

GS1
Hong Kong

Asia-Pacific Model E-port Network (APMEN)
亞太示範電子口岸網絡

Visualisation of Sea Freight Logistics Phase 2 Project
海運物流可視化計劃(第二階段)

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 19 members from 11 APEC economies.

2014年11月,亞太經合組織第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聯通性的區域合作計畫。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.

海路運輸是全球逾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,特別是像疫情等亂象來襲之時更有如 瞎子摸象,所以供應鏈透明度十分關鍵。

建基於亞太示範電子口岸網絡(APMEN)的海運物流可視化首階段計劃的成功,第2階段 計劃旨在協助APEC政府拆解2大難題:1)缺乏一致的關口管理及未成熟的清關手續, 以及中小企難以打入全球價值鏈(GVCs)的問題;2)海運和陸運數據缺乏透明度或質素 參差,令一些公司未能使用運輸物流基建及服務。

計劃集中審視APEC區內港口營運者的航運關鍵數據交換,利用GS1全球數據標準 (GDS)去提升電子港口及跨境貿易的可視化程度、完整一致性和透明度。

"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 demonstrated solid benefits in improving 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."

「COVID-19疫情嚴重衝擊國際供 應鏈,供貨規劃和現貨供應成為非 常棘手問題。作為發展智慧港口的 一環,GDS和ezTRACK平台能有 效地連繫其他港口,提高航運可視 化程度、降低成本和提振效率,有助 我們的客戶更好地規劃和確保產品 的現貨供應,為我們帶來優勢。」
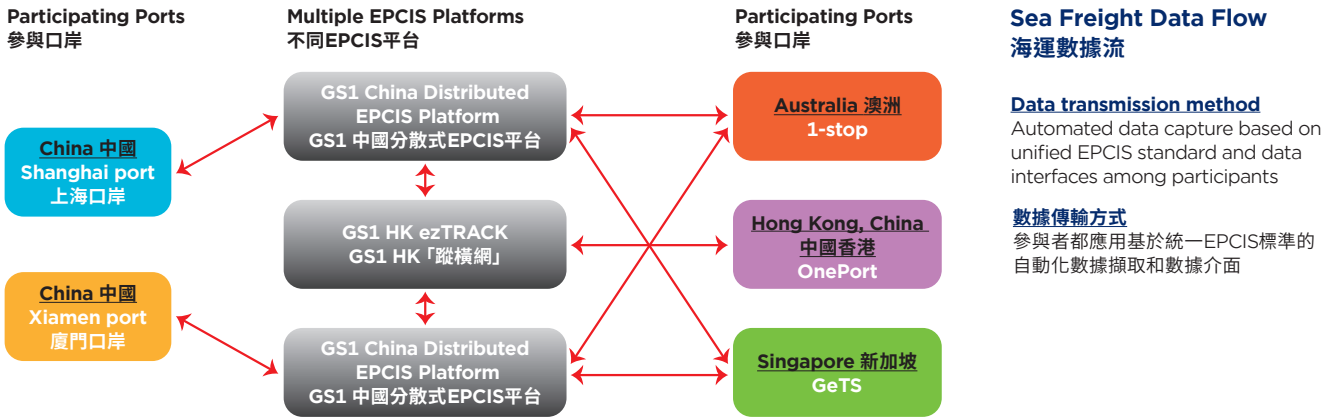
Philip Ho,
CEO of OnePort
一路通行政總裁 何漢傑

GS1 staards 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
- 蹤橫網
- 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**

**Multiple EPCIS Platforms
不同EPCIS平台**

**Participating Ports
參與口岸**

**Sea Freight Data Flow
海運數據流**

**China 中國
Shanghai port
上海口岸**

**GS1 China Distributed
EPCIS Platform
GS1 中國分散式EPCIS平台**

**GS1 HK ezTRACK
GS1 HK「蹤橫網」**

**China 中國
Xiamen port
廈門口岸**

**GS1 China Distributed
EPCIS Platform
GS1 中國分散式EPCIS平台**

**Australia 澳洲
1-stop**

**Hong Kong, China
中國香港
OnePort**

**Singapore 新加坡
GeTS**

Data transmission method
Automated data capture based on unified EPCIS standard and data interfaces among participants

數據傳輸方式
參與者都應用基於統一EPCIS標準的自動化數據擷取和數據介面

Solutions

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.

解決方案

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擷捉數據、分散式數據庫、及加深標準應用，同時牽涉更多持份者，包括來自上海、廈門、中國香港、新加坡、悉尼的港口／貨櫃碼頭營運商。

由於計劃比之前複雜，需應用多一個基於EPCIS的平台：OnePort在本地使用GS1 HK的「蹤橫網」，而上海及廈門港口則使用由GS1中國新研發出的分散式平台。這做法既可以確保數據的私隱和安全，同時所有參與者都能利用兩個開放平台作數據傳遞之用。

OnePort received electronic terminal receipt document / shipping electronic order from terminal operator when the vessel arrival or departure. 貨船離開及抵達港口時，OnePort從貨櫃營運商接收電子貨櫃收據文件／航運電子訂單。	OnePort sent the EPCIS format container information to GS1 Hong Kong EPCIS Server ezTRACK. OnePort以EPCIS方式傳送貨櫃資料予GS1 HK的EPCIS伺服器「蹤橫網」平台中。	ezTRACK automatically forwarded the container data / shipping data to correlated EPCIS Server (Shanghai, Xiamen and Australia) departure. 「蹤橫網」自動傳送貨櫃和航運數據到相關的EPCIS伺服器 (上海、廈門、悉尼)。	Terminal operator (Shanghai, Xiamen and Australia) sent back the container information to specific Port according to the shipping document. 貨櫃營運商 (上海、廈門、悉尼)根據航運文件回傳貨櫃資料到指定港口。

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.

計劃透過應用GDS達致更有效、更可靠的數據分享、降低成本及提升效率，亦為跨境航運供應鏈帶來更完善的操作流程。詳情請閱覽：https://bit.ly/3LoSavH

Benefits

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.

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，達致更佳規劃及風險管理
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