

Fact Sheet

Urban Logistics to receive significant boost with Last Mile Delivery via a Federated Lockers Network

Fifteen major logistics industry players, online merchants and marketplaces have signed a Memorandum of Intent with The Infocomm Media Development Authority (IMDA) to use the national Federated Lockers and Collection Points. In collaboration with HDB and LTA, IMDA also appointed two locker operators, Blu Logistics Pte Ltd and Singapore Post Limited (SingPost) to deploy and operate parcel locker networks, as well as awarded the Federated Lockers Interoperability Platform tender to Parcel Perform Pte Ltd, and the launch of Technical Reference 61 (TR 61) on data interchange for last mile delivery using parcel locker network. These are key milestones toward a pilot service for the public in the fourth quarter of this year.

The Federated Lockers and Collection Points programme was announced by Deputy Prime Minister Tharman Shanmugaratnam in April 2016, as an initiative to accelerate transformation for the logistics industry. Complementing the rapid growth in Singapore ecommerce market (worth S\$7.5 billion¹ in 2027), the programme aims to raise productivity and improve job quality for companies dealing in consumer retail, improve the livability of the city by reducing traffic congestion and carbon footprint generated when performing small parcel delivery, ease the last mile fulfilment challenges and enable consumers to collect parcels at their convenience.

Key Components of the Federated Lockers and Collection Points Programme

The network (shown below) functions through a single, **interoperability platform** with **standardised data interchange**, the programme will create a seamless, secure and consistent user experience across the parcel delivery processs. Users in the network including merchants, market places, logistics service providers (LSPs) and end consumers will be able to perform functions such as determine locker availability and make necessary reservations of locker via a consistent interaction with the federated lockers network. LSPs will also be able to receive digital confirmation of delivery/collection regardless of the locker

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operator used. The Federated Lockers and Collection Points programme, to be piloted in Bukit Panjang and Punggol, is targeted to begin in the 4th quarter of 2018 for a period of one year, with an option to extend the pilot for another year.



Illustration of the process flow of deliveries to parcel lockers, integrated through the interoperable platform. The platform's uses the TR61 technical reference as the main data interchange specifications.

The Federated Lockers Networks and Collection Points Programme aims to offer the following benefits:

For Retailers and Logistics Service Providers:

- Alleviate challenges of last mile fulfilment: Efficiency and cost savings through aggregated deliveries to a single locker station instead of to many individual homes
- Interoperability: A seamless, secure and consistent user experience across the parcel delivery process for users in the Federated Lockers network



• Enabling a sharing economy: Easy onboarding of logistics service providers and ecommerce players to utilise the locker network

For Consumers:

- Offer pervasive coverage: Access at MRT stations or within 250 meters from HDB residential block anytime
- Integration to consumers' lifestyle: More choices for collection and return locations near their home or transport nodes along their daily commute path from e-Commerce or other deliveries

Milestones Achieved

a) Appointment of Locker Operators

In collaboration with HDB and LTA, IMDA has awarded the deployment and operation of two locker networks to Blu Logistics and SingPost. Please see <u>Annex B</u>. The Programme also sees the participation from other existing parcel lockers operations for example, Parcel Santa onto this common delivery network.

b) Appointment of Interoperability Platform Operator

IMDA has awarded the Federated Lockers Interoperability Platform tender to Parcel Perform Pte Ltd, to design, develop and operate the platform. An independent platform operator serves to maintain neutrality between the locker operators and logistics service providers to ensure fair and open access to the locker infrastructure.

The Federated Lockers Interoperability Platform will have the capabilities of:

- a) An Application Programming Interface (API) for stakeholders to interact with the parcel lockers
- b) A service mediation layer that facilitates communication across different services



- c) Intelligent message routing to route service requests to the locker operators transparently
- d) Data exchange in varying formats and data transport protocols

The benefits of the interoperable platform are:

- <u>Reduces Operational Cost and Complexity</u>. The ability for different parcel locker systems to work together reduces the cost of building and supporting a heterogeneous infrastructure.
- <u>Enables Rapid Deployment and Onboarding</u>. The interoperability reduces friction in the communication between different locker operators and network users. It is key for rapid deployment of new lockers into the network as well as onboarding new users to utilise the lockers.

c) Technical Reference for Standardised Data Exchange and Protocols

In order to send, retrieve, return and track parcels on a shared platform, a common communication and messaging protocol must be adopted by different industry players.

Launched by IMDA, Enterprise Singapore and Singapore Manufacturing Federation-Standards Development Organisation (SMF-SDO), Technical Reference 61 (TR 61)¹ on data interchange for last mile delivery using parcel locker network provides a clear and robust framework to facilitate interoperatability between parcel locker networks operated by various operators and caters to a wide range of delivery process scenarios.

The technical reference provides the main data interchange specifications used in the Federated Lockers Interoperability Platform (Milestone B).defines and describes the datasets required and recommends a protocol for communication between the online

¹ TR 61 was developed by a working group under the purview of the Service Standards Committee (SvSC). The SvSC is one of standards committees under the industry-led Singapore Standards Council set up by Enterprise Singapore, the national standards body.

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marketplaces, e-retailers, logistics service providers and parcel locker or collection point operators, via the interoperable platform.

TR 61 is available for purchase from the Singapore Standards eShop at www.singaporestandardseshop.sg

d) Engagement of Ecosystem through the Locker Network

To facilitate effective fulfilment of last mile delivery to consumers, the Federated Lockers and Collection Points will need to be a joint service offered by merchants, e-commerce marketplaces and logistics service providers.

A memorandum of intent (MOI) has been signed between IMDA and industry players to participate in the locker network to achieve the following objectives:

- To ease the last mile fulfilment challenges by providing an alternative delivery to consumers to collect their purchases at their convenience;
- To provide an open access network to the lockers and services offered by different operators;
- To process and analyse the data collected for insights and for pilot assessment

The signatories to the MOI are:

- Blu Logistics Pte Ltd
- CJ Logistics Asia Pte Ltd
- DHL Express (Singapore) Pte Ltd
- NTUC Fairprice Co-operative Limited
- Federal Express (S) Pte Ltd
- Gogovan Singapore Pte Ltd
- Lazada Express (Singapore) Pte Ltd
- Ninja Logistics Pte Ltd
- Parcel Santa Pte Ltd

- Singtel & DBS (as 99%SME)
- Simplypost Asia Pte Ltd
- Singapore Post Limited
- Singapore Press Holdings Pte Ltd
- United Parcel Service Singapore
 Pte Ltd
- World Marketing Group Pte Ltd

Additional Resources:



Annex A: Quotes from Industry Partners

Annex B: List of locker sites

About Infocomm Media Development Authority (IMDA)

The Infocomm Media Development Authority (IMDA) leads Singapore's digital transformation with infocomm media. To do this, IMDA will develop a dynamic digital economy and a cohesive digital society, driven by an exceptional infocomm media (ICM) ecosystem – by developing talent, strengthening business capabilities, and enhancing Singapore's ICM infrastructure. IMDA also regulates the telecommunications and media sectors to safeguard consumer interests while fostering a pro-business environment, and enhances Singapore's data protection regime through the Personal Data Protection Commission.

For more news and information, visit <u>www.imda.gov.sg</u> or follow IMDA on Facebook IMDAsg and Twitter @IMDAsg.

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Annex A

Quotes from Industry Partners

"Blu is proud to be one of the appointed Locker Operators for IMDA's Federated Lockers and Collection Points Pilot Programme, in line with the Smart Nation initiative. By establishing parcel terminal networks and leveraging the benefits of self-collection, we look forward to working with the industry to elevate last-mile logistics in Singapore, bringing greater convenience and savings to retailers, logistics service providers, and shoppers."

Mr Prashant Dadlani CEO and Founder, Blu Logistics Pte Ltd

"Guidelines like TR 61 supports the transformation of the logistics and retail industries by establishing a set of industry-agreed data interchange specifications to enable the deployment of an open access parcel locker network. The TR ensures interoperability amongst all stakeholders and Singapore companies and consumers would benefit from the increase efficiency and the additional delivery option for goods. In support of industry transformation, we encourage more industry players to work with Enterprise Singapore to develop and adopt standards to enable the continued success of Singapore companies in the future economy."

Ms Choy Sauw Kook Assistant Chief Executive Officer & Director-General, Quality and Excellence, Enterprise Singapore

"In tandem with Singapore's Smart Nation vision, HDB has been actively exploring the use of new technologies and ideas that can enhance the day-to-day living of our residents. This pilot parcel delivery and collection system is envisioned to bring about greater convenience to residents as they will be able to pick up their parcels anytime, as part of their daily commute around the estate."

Ms Kee Lay Cheng Group Director (Properties & Land), Housing & Development Board

"LTA constantly looks for innovative solutions to improve the travel experience for our commuters and we see lockers deployed at MRT stations as an enhancement to the current features that we have. These lockers will allow commuters to pick up their parcels when they arrive at or depart from the MRT station, especially when no one is at home to receive the parcels and if there are no lockers available nearby. With our MRT average daily ridership at 3.1 million, we anticipate that the lockers would be able to serve the commuters well when the lockers are fully deployed island-wide. We are excited to be a partner in the



federated locker pilot trial and together with our Public Transport Operators, we will continue to explore the latest technology to improve commuter's travel experience."

Mr Lam Wee Shann Chief Innovation & Technology Officer, Land Transport Authority

"The Interoperability Platform is a key enabler for the open access locker network across Singapore and the Parcel Perform team is excited to develop and operate a future-proof technology solution to make the Federated Lockers a success."

> Mr Arne Jeroschewski, CEO/Founder, Parcel Perform Pte Ltd

With the development of TR 61, the playing field is now levelled for companies that had previously faced difficulties or challenges in last mile delivery. SMEs can now have open access to enter the parcel locker network business and leverage on this interoperable platform. With TR 61, SMEs can now deliver improved logistics services in the B2C markets."

Mr Andy Yun, Secretary-General, Singapore Manufacturing Federation

"As the operator of Singapore's most extensive parcel locker network, SingPost looks forward to contributing expertise and technology to enhance the last mile delivery experience across Singapore and the world of eCommerce. The federated lockers will, with the rest of our eCommerce logistics ecosystem, accelerate the development of urban logistics solutions for Singapore and cities round the world."

> Mr Alex Tan Group Chief Information Officer, SingPost



ANNEX B

List of Locker sites

Bukit Panjang town: (to be implemented by Blu Logistics)

- 23 locker sites in Bukit Panjang town
- A locker site in each of the selected MRT stations:
 - o Bukit Panjang
 - o Chinese Garden
 - o Lakeside
 - o Boon Lay

Punggol town: (to be implemented by SingPost)

- 39 locker sites in Punggol town
- A locker site in each of the selected MRT stations:
 - o Punggol
 - o Sengkang
 - o Buangkok
 - Hougang



Pilot to commence in Quarter 4 2018