Sharing transport data using the 2D barcode

Transport operators from around the world rely on the transport data encoded on a logistics label to support their daily operations. Currently, this data is captured in various proprietary formats. As the number of transport providers grows, so do these proprietary solutions, especially when it comes to two-dimensional (2D) barcodes.

Consider that many retailers and shippers must use dozens upon dozens of transport providers and just as many different ways to encode the same information on a transport label. Driving this proliferation of transport providers are consumers. They are demanding increasingly more delivery options—demands that can only be fulfilled with more transport providers. For retailers and shippers, there is excessive waste associated with the development costs and time required to setup many different transport providers in their transport systems and processes.

Another major issue revolves around the lack of a common, global standard in sharing transport data. This is driving inefficiencies, unnecessary costs and decreasing productivity industry-wide. The cost of maintaining multiple label formats and data capture processes is a burden on all stakeholders in the industry.

Most importantly, the lack of interoperability prevents stakeholders from actually processing the information in 2D barcodes, generated by other stakeholders. By using a common standard that describes the information in the 2D barcode, stakeholders can read transport data generated by other stakeholders. This translates to much faster handling with near-perfect accuracy, especially in the “last mile” where the number of packages is rapidly increasing and more and more stakeholders are involved in the handling.

Background

This work to standardise transport data capture in the 2D barcode is the logical next step to recent standards updates that allow for the printing of 2D barcodes on the GS1 Logistics Label. The Australian Logistics Council Supply Chain Standards Working Group is spearheading this drive toward standardisation worldwide. (The Australian government has identified a loss in productivity totalling $1.63 billion due to the lack of interoperable transport standards.)

Yet, this issue is clearly global. In a survey of the Transport & Logistics (T&L) Member Organisation (MO) Interest Group, 11 GS1 MOs indicated they have local transport companies using 2D symbols on their transport label—most, if not all, in a non-GS1 standards format. In fact, the survey found at least 30 such cases exist around the world.
Impact
Retailers and shippers will realise significant cost and time savings since they will no longer need to setup and maintain a separate, proprietary approach for every trading partner.

Furthermore, all stakeholders in the supply chain will have instant access to all the data they need to execute their tasks effectively and efficiently, even when reliable network connectivity is not available. In turn, this will result in much smoother operations and substantial reductions in handling and delivery errors.

Why is this work needed?
If this business need is not addressed, there will be further proliferation of non-standard, proprietary solutions, interoperability issues, additional costs, and the dependency on proprietary vendor solutions.

Working group objectives
Industry has defined the main challenges in T&L operations that would benefit from 2D barcode standardisation in support of three main transport processes:

- Automatic sorting
- First- and last-mile activities
- Administration activities (e.g., proof of delivery and invoicing)

The GS1 Scan4Transport Work Group will review the business requirements identified by industry and develop a GS1 standard to enable industry to encode the minimum required transport data in a 2D barcode on a logistics label.

The group will consider emerging standards such as uniform resource identifier (URI) for addressing the business needs.

Who should join this working group?
The GS1 Scan4Transport Work Group should include a mix of transport operators, shippers, solution providers and GS1 MOs who will work collaboratively to complete the development of this global GS1 standard. The needed experience and skills include those responsible for daily logistics and supply chain operations.

How will the working group operate?
The work group will follow the GS1 Global Standards Management Process (GSMP) and targeted timeline:

- Define business requirements. Collect input from the industry and solution provider communities about what the standards should include. (January – March 2019)
- Develop standards. Experts draft standards and present them to industry and solution providers for confirmation and approval. (March – June 2019)
- Ratify and publish. Standards are approved by the standards development community, ratified by GS1 governance bodies and published. (Completed by 30 June 2019)

Next steps
Join the GS1 Scan4Transport Work Group: https://www.gs1.org/standards/development-work-groups#S4T

Need help or have questions?
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