# Put an end to printed delivery notes!

GS1 and BVL implement digital processes with Cloud4Log - including value-added services

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Andreas Micke, Manager Cloud4Log, GS1 Germany GmbH

"Beep!" Almost everyone is familiar with the characteristic sound the register makes when an article's bar code is scanned at the supermarket checkout counter. Six billion of these bar codes are currently scanned every day, making them the universal standard in international retail.

The organization behind this standard is Global Standard One, or GS1 for short. GS1's mission is to put complex business processes between industry and retail on a solid foundation to facilitate the smoothest possible sharing of information. Today, more than two million enterprises worldwide use the 24 GS1 standards for their business processes.

In October 2020, GS1 and the German national logistics association Bundesvereinigung Logistik (BVL) launched a project aimed at developing a standard for the processes (supply chain management) between suppliers and retailers in the consumer-goods industry (FMCG) that captures the full potential of digitalization. This evolved into the concept for Cloud4Log. To realize this project, the two organizations sought a competent partner for digitalization. And they found it in T-Systems.

## At a glance

- Achieve greater efficiency in logistics
- Replace the paper-based process for consumer goods
- Establish a digital standard for delivery notes
- Improve sustainability by reducing paper consumption
- Scalable solution
- Open architecture with a modern technology stack
- Enhanced user experience, intuitive use
- Linked with additional value-added services for a digitalized supply chain
- High transparency of the delivery process
- Faster billing, better cash flow
- Options for further digitalization, such as data analytics

# ·T··Systems·

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# Reference in detail

## The challenge

While the CMR bill of lading is already the standard for international trade, domestic movements of goods are dominated by individual delivery notes. Consignor companies design their delivery notes according to their own best practices - with predictably varying results. In addition, these documents are still printed on paper. The consequence is a large number of illegible delivery notes that can be lost easily, impeding the logistics process again and again. The analog exchange of delivery notes and information between different players is complex, time-consuming, and challenging. Replacing printed documents and implementing standardized digital delivery notes have great potential for significant efficiency gains in logistics.

## The solution

In the summer of 2021, GS1 and the BVL successfully piloted the Cloud4Log solution. Cloud4Log went live in October 2022. More than 80 companies are already registered on the platform, including well-known German retailers like Penny, dm, and Rewe, as well as manufacturers of consumer goods such as Nestle, L'Oreal, Henkel, Griesson, and Unilever.

T-Systems built this modern logistics platform on state-of-the-art technologies like OpenAPI and Node.js. The back end runs on the Open Telekom Cloud, which stores the metadata of the involved parties together with the specific delivery processes – all 100 percent secure and GDPR-compliant. The entire delivery process is mapped on the platform – in the form of PDFs, which the involved parties can supplement with additional information. As a result, the delivery process is completely transparent.

A set of value-added services (Cloud4Log add-ons) enhances the basic Cloud4Log service. These value-added services enable process participants to take the next steps toward digitalization, for example, using electronic delivery notes that are based on machine-to-machine communication. Other services mapped already by the add-on services include self-services for drivers who can use special terminals to sign in and out at the sites they visit. With this self-service, freight-related documents are directly reviewed and signed after the handover.

In addition, T-Systems can connect a company's SAP systems to Cloud4Log, further automating process flows – a particularly interesting option for companies who have to manage large numbers of delivery processes. CMR forms (bill of lading) can already be integrated in the session today and filled with current information. The structures for the upcoming electronic bill of lading (eCMR) are also defined.

## Customer benefits

Cloud4Log and the supplementary Cloud4Log add-ons support the efficient, paperless execution of logistics processes. There is no more need for manual scanning; maximum real-time transparency is provided for the delivery process. Incorrect deliveries can be identified and corrected more quickly. A data-driven logistics process supports further analyses to identify additional potential for optimization.

Logistics providers and consignors get much faster confirmation of completed deliveries and can send invoices more quickly, improving their cash flow. Last but not least, vast amounts of paper are saved – shrinking the carbon footprint and making the logistics process more sustainable.

Cloud4Log add-ons already enable companies to further enhance the efficiency of their logistics processes today and to set the course toward the future. The value-added services make Cloud4Log even more beneficial: "The Cloud4Log add-ons enable companies to seamlessly integrate digital delivery notes in their process flows. The enhanced functions make it possible to eliminate time-intensive, resource-heavy paper-based processes and create optimized logistics processes," reports Andreas Micke, the manager of Cloud4Log (GS1).