Conecept digital delivery note / Cloud4Log / Cloud4Log Plus

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#GREEN MAGENTA
DIGITAL DELIVERY NOTE.
PAPERLESS. SUSTAINABLE. FUTURE-PROOF.

T··Systems

Let's power higher performance

The digital delivery note

Cloud4Log — Powered by BVL & GS1 Germany — **PLUS**

1 Delivery notes are created / uploaded by the employee or a connected system and can be enriched with further information.

2 Based on one or more delivery notes, the system automatically creates a common QR code for the checkout.

| 1	2	3	4	5	6	7	8	9	10
Creation of a delivery note	QR-Code generation	QR-Code scan	Status: sent	Registration with the recipient	Check-In with QR-Code	Status: closed	10 days for fine control	Automated transactions	Archiving of delivery note

The digital delivery note

Cloud4Log
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PLUS

4

With the acknowledgment by the driver, the status of the delivery changes to "shipped" (in real time). The goods are on their way...

3

The driver scans the QR code and can now check the data and acknowledge receipt of the delivery. Subsequently, he receives the digital delivery note on his mobile phone (as a so-called "wallet element").
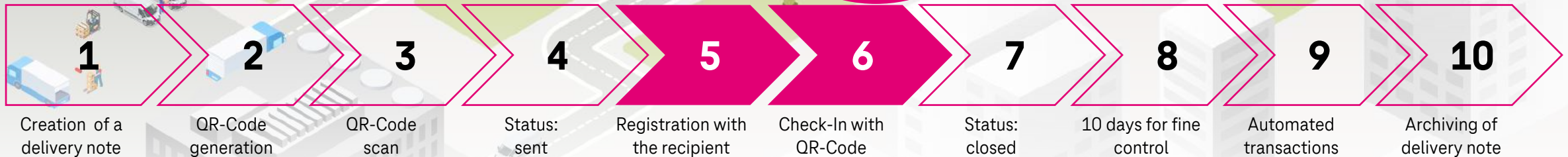
1	2	3	4	5	6	7	8	9	10
Creation of a delivery note	QR-Code generation	QR-Code scan	Status: shipped	Registration with the recipient	Check-In with QR-Code	Status: closed	10 days for fine control	Automated transactions	Archiving of delivery note

The digital delivery note

Cloud4Log PLUS
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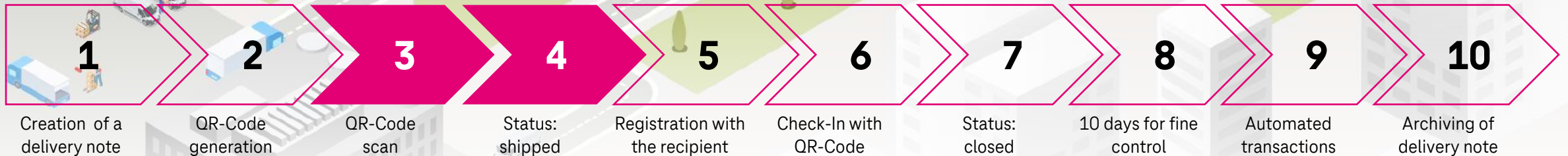
6 In the goods receipt, the driver's QR code is scanned. The goods receipt is thus given dedicated access to the delivery notes for the delivered goods.
The check-in process starts.
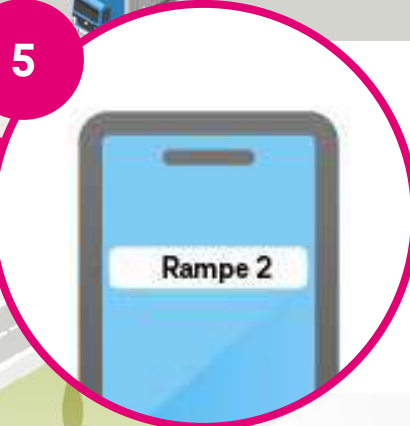
5 The driver registers with the recipient and the dock sensors detect a free dock and reserve it for the driver. The driver receives the specific information via a push notification.

Rampe 2

1	2	3	4	5	6	7	8	9	10
Creation of a delivery note	QR-Code generation	QR-Code scan	Status: sent	Registration with the recipient	Check-In with QR-Code	Status: closed	10 days for fine control	Automated transactions	Archiving of delivery note

The digital delivery note

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8 For a period of 10 days from the change of status "shipped" to "closed", goods receipt employees can optionally upload a detailed control document.

7 The goods receipt employee checks the delivered goods against the delivery notes (rough inspection). Subsequently, both the goods receipt employee and the driver acknowledge receipt and handover of the delivery. The status changes to "closed" (in real time).

| 1	2	3	4	5	6	7	8	9	10
Creation of a delivery note	QR-Code generation	QR-Code scan	Status: sent	Registration with the recipient	Check-In with QR-Code	Status: closed	10 days for fine control	Automated transactions	Archiving of delivery note

The digital delivery note

10 The digital delivery note is available for archiving for 10 weeks, including the process information.

9 With the status transition to "closed", financial transactions between the parties involved can be carried out automatically.

1	2	3	4	5	6	7	8	9	10
Creation of a delivery note	QR-Code generation	QR-Code scan	Status: sent	Registration with the recipient	Check-In with QR-Code	Status: closed	10 days for fine control	Automated transactions	Archiving of delivery note
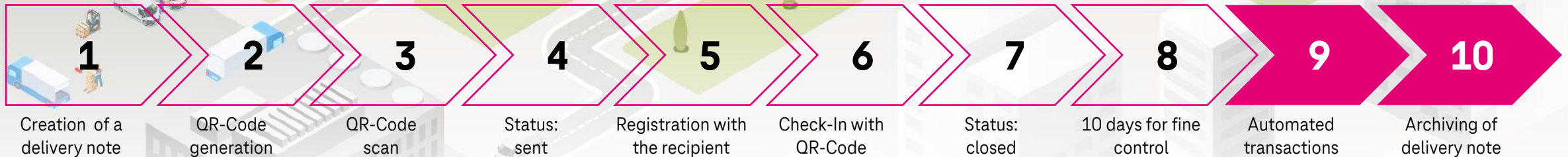
Cloud4Log Basic (GS1)

Significant process advantages for users

Significant process advantages for users

- Simple and fast selection of delivery notes with deviations

- Accelerated delivery feedback in real time

- Paperless transport process & available departure time at the loading point in real time

- Transparent documentation of delivery deviations including damage patterns

- Comprehensible documentation of the loading equipment exchange at the loading and unloading point

- Reduction of invoice corrections and credit notes

- Quick and easy identification of driver personnel and cargo at the unloading point

- No scanning effort for archiving delivery documents & no loss of delivery notes

Cloud4Log Plus (T-Systems)

Value-added service Cloud4Log PLUS
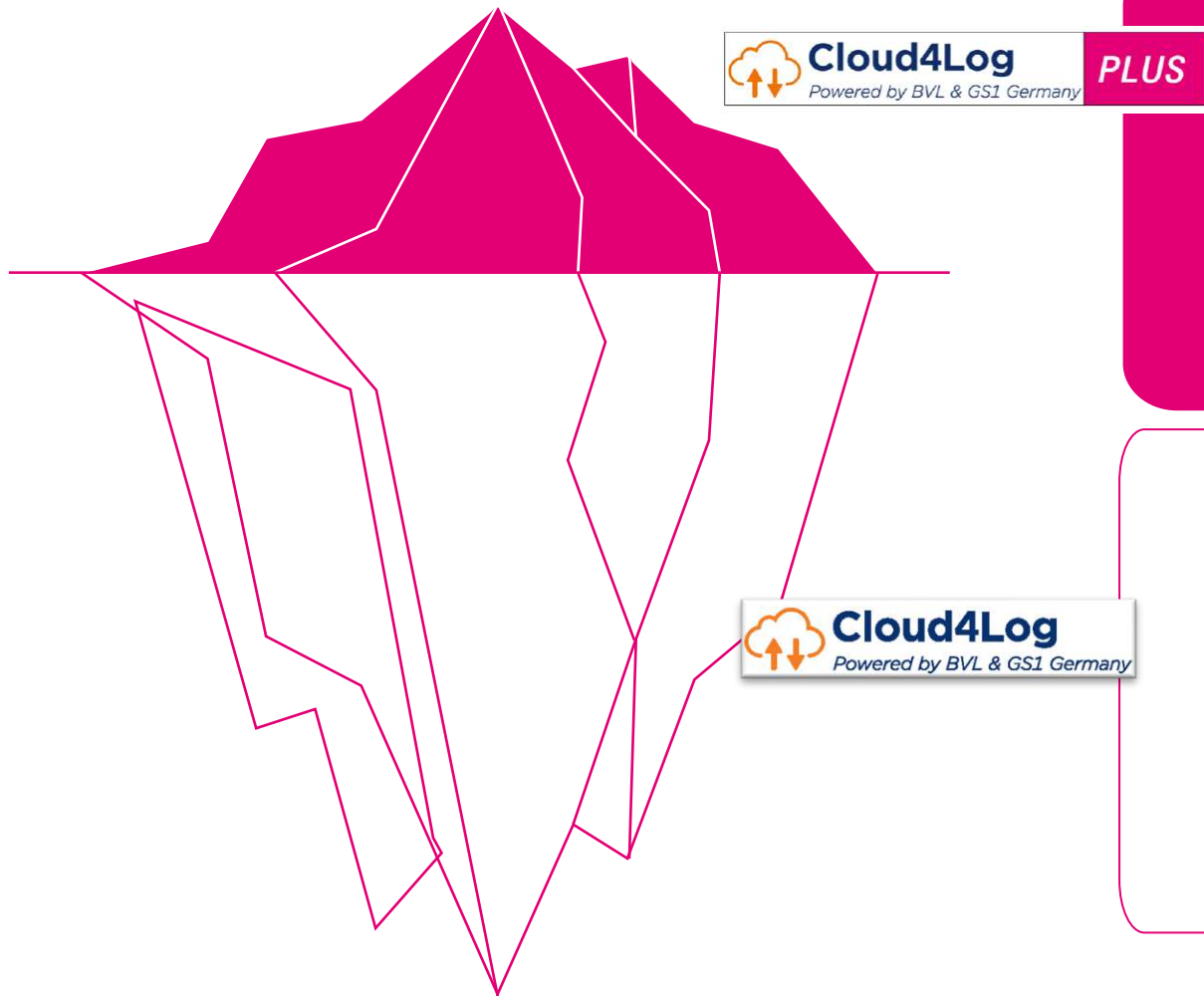
Cloud4Log Plus develops specific services whose service catalog is developed together with GS1. At the same time, these features implement useful extensions as well as company-specific requirements. T-Systems is responsible for development, marketing and billing.

The digital delivery note was developed by T-Systems under the name Cloud4Log and is operated by GS1 on behalf of the German Bundesvereinigung Logistik as a service provider. As an OPEN API / cloud solution, the system provides a simple, universally applicable system without mapping company-specific requirements.

Cloud4Log Plus (T-Systems)

Service offerings

01
Digital delivery notes

Import and edit delivery notes with M2M attachment, electronic delivery note, article list

02
Waybill

Waybill (CMR) as a freight-accompanying document, waybill in digital form (eCMR)

03
Real-time communication

Updating of information in all connected frontends or systems

04
Driver App

Download of the delivery note and communication support from and to the driver

05
SAP-interface

Support for connecting the SAP system to Cloud4Log

06
Archiving

Automatically archive delivery notes and manage them via image master

07
Event-related payment

Status change triggers payment

08
Business Monitoring

Standard and custom dashboards for business process analysis

09
Interface to dock sensors
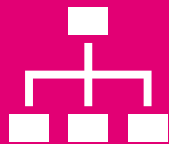
Dock assignment, dock occupancy and much more

Cloud4Log Plus (T-Systems)
Service offerings

01

Digital delivery note

- In addition to the human-readable PDF format, the delivery note is supported with machine-readable attachments.

- Process-relevant information such as article items are read from uploaded delivery notes and can be edited in the application.

- Processed information, e.g. about load carriers and deviations, is supplemented in the machine-readable part of the file.

- The formats XML and JSON are currently offered.

- The delivery note is completely digitized and only read and processed in XML format.

- The new DELIVER-X standard for a hybrid electronic delivery note from ZUGFeRD is supported.

Cloud4Log Plus (T-Systems)
Service offerings

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02
Waybill

- The previous CMR form is carried in the folder as a freight-accompanying paper and can be filled with the current information.
- The electronic waxbill is stored as an XML structure and processed in Cloud4Log.
- A waybill is generated from a delivery note.

03
Real-time communication

- Instant propagation of status changes
- Updates for the entire supply chain
- Shortening of asynchronous processes: Driver signature terminates process

04
Driver App

- Driver app for offline access to delivery notes
- Employee app as a supplement to the web application
- App with digital signature support
- Support of the electronic waybill

Cloud4Log Plus (T-Systems)
Service offerings

05
SAP-interface

- Support service for connecting SAP systems to Cloud4Log

- Transfer of delivery notes from SAP

- Preparation of check-out from SAP

- Return of deliveries to SAP

06 **Archiving with ImageMaster**

- Automatic archiving after certain process steps

- Document management of archived files in ImageMaster

07 **Event-related payment**

- After successful and full completion of the check-in process, an event is triggered

- This event causes a payment to be triggered at a credit institution

Cloud4Log Plus (T-Systems)

Service offerings

08
Business Monitoring

- Representation of company-specific identifiers

- Analysis of business developments, event handling

- Provision of specific dashboards

09 Interface to dock sensors

- Identification of vehicles by license plate recognition

- Dock assignment for vehicles

- Automatic start of check-in / check-out

- Downtime recording

Service Description

Cloud4Log Basic currently only works with delivery notes in human-readable PDF format. These are converted to PDF/A-3 format for later archiving.

The information determined during the process is integrated into or attached to the PDF document. Any machine-readable attachments are extracted by C4L Basic during the upload and offered at the API, but are ignored in terms of content and process.

In Cloud4Log Plus, existing, machine-readable attachments are also read out during the upload and the data relevant to the process is processed.

In addition, the information generated during the process (XML or JSON) is attached to the PDF document in machine-readable form.

Service Features

- Cloud4Log Plus recognizes the machine-readable part of the uploaded delivery note and extracts existing, process-relevant information (delivery note number, order number).
- If available, this information is used/pre-filled for further processing of the delivery note.
- Information about load carrier exchange, deviations and driver information accumulated during the process is stored in a structured manner in the machine-readable part and attached to the delivery note (status closed).
- Optionally, this machine-readable part can be loaded separately via an endpoint.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.

- A prerequisite is also the initial, machine-readable part of the delivery note with a known and stable structure (for the transfer of process-relevant information from the sender).

1. Initial discussion: Analysis of the delivery notes, implementation of the service

2. Evaluation of the reading of the machine-readable part using example delivery notes and evaluation of the results; joint definition of the relevant information for the further process

3. Interface test support

4. Automatic reading and reading in machine-readable format

5. Display of the information accumulated in the process separately and as an attachment

6. Optional: automatic reading of structured information from the PDF delivery note directly and use of this information during processing (e.g. delivery note and order number). This is not an OCR procedure, but an analysis at the file structure level

Value for the customer

All customers:
- Avoiding manual errors.
- Time savings through automatic display of the information accumulated during the process (load carrier exchange, deviations, driver information), if entered in detail (delimitation: no separate reading of pallet slips, goods receipt documents, fine control documents or other attachments).

Consignor/goods issue:
- Time savings through automatic transfer of process-relevant information.
- Yard management support.

Pricing model

individual offer

Further information

Cloud4Log Basic:
https://bvl-digital.de/cloud4log/

Registration
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Cloud4Log Plus:
https://dls.plus.cloud4log.dev

Contact: c4l-support@t-systems.com

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01b electronic delivery note

Service Description

Like Service 01a, but different/additionally:

Cloud4Log Basic currently only works in human-readable PDF format.

Cloud4Log Plus ensures that the application only expects an XML structure of the delivery note in the upload. A PDF document for control purposes is generated from this for display during the process.
The information recorded during the process is stored in the XML structure.
The DELIVER-X standard is developed by AWV and is the basis for the XML structure.

Service Features

- When uploading the delivery note, the XML structure is recognized according to the DELIVER-X standard.
- All relevant end points are supplied with the data available in the XML structure so that the process is optimally prepared.
- All relevant information can be viewed and edited in the relevant fields in the frontend. The current information as well as the information recorded during the process (load carrier, deviations) are saved in an XML structure.
- The fully processed delivery note is provided as XML (DELIVER-X structure).
- A PDF document can be generated from the XML structure for display/download, to which further attachments (goods receipt document, pallet slip, detailed inspection, images) can be attached.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.
- Service 01a is included (without the optional part), as these build on each other.
- Delivery notes with a uniform XML or JSON structure on the outgoing goods side are required. This does not mean a PDF document, but an XML/JSON file.

1. Analysis of the structure of the delivered delivery notes, checking the Deliver-X conformity, defining and implementing adjustments if necessary
2. Testing the reading, processing and reading of the delivery note
3. Automatic extraction of data when uploading the delivery note, filling of the API endpoints, filling of the folder in the frontend if desired
4. Provision of the updated electronic delivery note after completion of the process as well as ongoing generation of a PDF delivery note based on this data for display/download
5. Monitoring and troubleshooting in pilot operation, optimization in the further course

Value for the customer

All customers:
- M2M communication; Digitization based on DELIVER-X standard.
- Backwards compatibility to C4L Basic and C4L Plus 01a, therefore also includes the functionality of C4L Plus 01a (except for optional functions).
- The PDF document is generated in human-readable form for display/download, so the frontend, for example, can continue to be used without restriction.

Pricing model

individual offer

Further information

Cloud4Log Basic:
https://bvl-digital.de/cloud4log/

ZUGFeRD/Deliver-X: https://www.ferd-net.de/aktuelles/meldungen/standardisierung-elektronischer-lieferscheine.html

Cloud4Log Plus:
https://dls.plus.cloud4log.dev

Contact: c4l-support@t-systems.com

01c Import and edit article list

Service Description

Like service 01b, but different/additionally:

Companies want to check item level in the process of rough/fine control. For this purpose, the article information is extracted from the delivery note *).
This article information is displayed (in the frontend) as an article list. In the incoming goods inspection, item by item can be checked and ticked off.
Deviations can be recorded directly for each article. This information is stored in a structured manner and can therefore be processed automatically.

Service Features

- When the delivery note is uploaded from the PDF document in outgoing goods, the information about the individual items is read out. Alternatively, the following applies:
  - *) From a machine-readable attachment provided by the customer (from Service 01b) or
  - *) by reading the (structurally stable) PDF document.
- This article information can then be read out via the API and also listed in a table in the front end.
- In goods receipt, deviations can now be recorded directly at item level.
- The deviations can be called up via the API and displayed in the article overview in the closed delivery note.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.
- Service 01b is included as these build on each other. Additional requirements are delivery notes with a known and stable structure.

1. Evaluation: Reading out the item list from the XML (preferred) or the machine-readable part of the PDF using example delivery notes and evaluating the results
2. Evaluation: Merging the processed data into the XML structure or the machine-readable part, support for interface tests
3. Provision of this article list in the API or in the frontend
4. Provide an editing function in the frontend to mark the item list as "checked" during the visual inspection or to provide position-specific deviations
5. Automatic reading and reading in machine-readable format
6. Optional: Automatic reading of the article information directly from the PDF and use of this information in the goods receipt

Value for the customer

Goods Receipt:
- Technically, work is carried out at the item level instead of at the delivery note level.
- The system contains all the necessary information about articles in order to process the article positions in the goods receipt as a checklist.
- Deviations can be assigned directly to the item position.
- Further processing possible due to direct assignment digitally (via API).

Pricing model

individual offer

Further information

Cloud4Log Basic:
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Registration
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Cloud4Log Plus:
https://dls.plus.cloud4log.dev

Contact: c4l-support@t-systems.com

Service Description

Cloud4Log Basic currently only processes digital delivery notes.

In this "Service 02a" it is possible to use bills of lading instead. Cloud4Log Plus offers both the upload of digital, pre-filled bills of lading and the provision of an empty form that can be filled out via the frontend.

When uploading pre-filled bills of lading, existing content is read out and offered for further processing, then successively supplemented with the process information and offered for display or download. Addition/upload of further documents accompanying the freight possible.

Service Features

- API endpoint or separate tab in the frontend for uploading additional documents in PDF format that accompany the freight.
- Pre-filled bills of lading are read out, displayed and stored in the folder.
- Provision of an empty CMR form with the possibility to edit the form in the frontend.
- Signature "Sign on Glass"
- The bills of lading are available to the driver during transport.
- Download and view the bill of lading during and at the end of the process.
- Other documents accompanying the freight can also be uploaded on request.

Service

- The prerequisite for using the service is the onboarding Lof the company to Cloud4Log Basic, we provide comprehensive advice.

1. Advice on the initial setup of the service, test, if necessary interface test, individual adjustments
2. Upload bill of lading as a pre-filled PDF, read in the information, edit the information
3. Provision of input mask for empty CMR, editability of the form
4. Upload of documents accompanying the freight (confirmation of dangerous goods, …) and return delivery documents (confirmation of arrival*) as an attachment to the bill of lading under the responsibility of those involved)* To be clarified in the archiving context
5. Signature "Sign-on-Glass" and positioning of the signatures in the correct places of the CMR

Value for the customer

All customers:
- Processing of alternative, freight-accompanying documents (here: CMR) using the basic and plus features of C4L
- Electronic delivery of pre-filled documents via the API or via the frontend
- Time savings when filling out/editing the documents
- Availability of the processed CMR and other documents accompanying the freight in real time for all parties involved

Pricing model

individual offer

Further information

Cloud4Log Basic:
https://bvl-digital.de/cloud4log/
Registration
https://bvl-digital.de/cloud4log/#anmeldung
Cloud4Log Plus:
https://dls.plus.cloud4log.dev

Contact: c4l-support@t-systems.com

02b Waybill in electronic form (eCMR)

Service Description

Like service 02a, but additionally/deviating:

- Processing of an electronic bill of lading in XML format in addition to the analysis of an uploaded PDF document.
- All data is already transmitted digitally via API and processed by us.
- Generation of a bill of lading in human-readable PDF format from the XML data.
- Optional: Advanced digital signature instead of the simple electronic signature.

Service Features

- Mapping of the eCMR structure in our C4L Plus system.
- Processing of the eCMR in standardized XML form in input and output.
- Generation of a CMR in human-readable PDF format for all stakeholders to view and download.
- Optional: implementation of the advanced electronic signature at the relevant points.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.
- Service 02a is included as these build on each other.
1. Advice on the initial setup of the service, test, if necessary interface test, individual adjustments
2. Upload bill of lading as a standardized XML structure, read in the information, edit the information
3. Generation of a human-readable waybill in PDF format for viewing/downloading
4. Optional: implementation of the advanced electronic signature

Value for the customer

All customers:
- Effort and time savings for the customer through direct interface communication without the detour via the PDF waybill.
- Optional: advanced electronic signature.

Pricing model

individual offer

Further information

Cloud4Log Basic:
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Cloud4Log Plus:
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Cloud4Log PLUS **Contact:** Torsten Jaenicke-Rößler +49 175 26 23 014 Torsten.Jaenicke-Roessler@t-systems.com

02c eFTI Compatibility

Service Description

Like service 02b, but additionally/deviating:

- Delimitation: Currently no eFTI compatibility (due to unknown specifications)
- Earliest findings after **08/21/2023**

Service Features

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic provide comprehensive advice.

Value for the customer

Pricing model

Further information

Cloud4Log Basic:
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Service Description

In Cloud4Log Basic, all information is exchanged asynchronously, both in the frontend and in wallets. The frontend updates its information every 10 minutes. Wallet items are not updated.

Cloud4Log Plus is also able to provide changed information in the backend in real time using so-called "Server Sent Events". This information can then be received and displayed by the frontend. Central events have already been realised. However, further data for synchronous communication can also be provided for company-specific requirements.

Service Features

- Changes to desired information and/or status are reported to the system as events in real time and can be displayed both on the C4L Plus API and in the frontend. Events are always communicated to everyone involved.
- Customers of Service 03a are also shown these events in real time, e.g. B. Status changes, exceeding of defined thresholds or newly uploaded documents.
- If desired, the driver's signature ends the goods receipt process, which means that the goods receipt employee no longer has to become active.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.

1. Consulting: When the service is activated, the actual information requirements for the company are determined (requirements analysis)
2. Company-specific requirements are implemented
3. Synchronous data display in the frontend
4. Process completion (delivery note folder in the status closed) directly through the signature of the driver (and without signature of the recipient)

Value for the customer

All customers (with booked service 03a):
- Real-time signaling of desired events.
- Technical basis for further services.

Goods Receipt:
- Accelerated processing on request.
- Error prevention in goods receipt.

Pricing model

individual offer

Further information

Cloud4Log Basic:
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Service Description

In Cloud4Log Basic, all information is exchanged asynchronously, both in the frontend and in wallets. The frontend updates its information every 10 minutes. Wallet items are not updated.

Cloud4Log Plus is also able to provide changed information in real time using the so-called "Server Sent Events". Central events have already been realised. The information can then be received and displayed by wallet elements. Therefore, the focus here is on data exchange with the driver.

Service Features

- Changes to desired information and/or status are reported to the system as events in real time and can be displayed both on the C4L Plus API and in the frontend. Events are always communicated to everyone involved.
- The service 03b is also used to update and display the associated wallet elements. Here, for example, the arrival time window and the planned ramp occupancy can be displayed to the driver. The service is therefore particularly interesting for incoming goods.
- By booking this service it will be possible to record a ramp and/or a time slot in C4L Plus (FE). This information can then be transmitted to the wallet element as push information.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.

1. Consulting: When the service is activated, the actual information requirements for the company are determined (requirements analysis)
2. Company-specific requirements are implemented
3. Entry of ramp information by recipient/goods receipt in the folder
4. Synchronous data in wallets

Value for the customer

Recipient/goods receipt (with booked services 03b):
- Can provide the driver with real-time updated information.
  - Synchronous data in wallet items.
  - Display of the time window.
  - Signaling of the planned unloading ramp.
- Helps to avoid delays and congestion in incoming goods.

Pricing model

individual offer

Further information

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Contact: Torsten Jaenicke-Rößler 📞 +49 175 26 23 014 ✉ Torsten.Jaenicke-Roessler@t-systems.com

04 driver app with ZEKJU

Service Description

The ZeKju product provides messenger communication between drivers, dispatchers and other parties involved in the supply chain during the transport of a delivery.

With this service, Cloud4Log Plus offers current and future users of ZeKju an interface. Information such as driver data and notified delivery time is sent from ZeKju to C4L Plus and information about the completion of the collection or delivery from C4L Plus to ZeKju. The driver is also offered the option of downloading the delivery note(s), which supports the offline availability of C4L Plus.

Service Features

- Support for messengers Telegram, WhatsApp and Viber.
- After the driver has taken over the tour, the information about the driver, vehicle and notified delivery time is transferred to C4L Plus and supplemented and displayed there in the associated folder.
- If the notified delivery time changes during transport, this information is synchronized between ZeKju and C4L Plus.
- After completion of the goods issue and the goods receipt (through the signatures), these events are communicated to ZeKju.
- The delivery note handed over at the goods issue is made available to the driver for download.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.
- The prerequisite is an agreement between the issuer of the delivery note and the driver's forwarding agent that delivery notes may be saved locally.

1. Onboarding at ZeKju, onboarding at C4L
2. Clarification of data protection aspects
3. Synchronization of the notified delivery time (initially created when creating the folder in C4L Plus, updated during transport in ZeKju)
4. Transfer of driver information from ZeKju to C4L Plus
5. Download function for delivery notes

Value for the customer

All customers:
- Easy communication with the driver during transport.
- Timely updating of the system data via the interface between ZeKju and C4L Plus.
- Offline availability of delivery notes in control situations.
- Use of existing messengers by the driver.

Pricing model

individual offer

Further information

Registration
https://bvl-digital.de/cloud4log/#anmeldung

Cloud4Log Plus:
https://dls.plus.cloud4log.dev

ZeKju: https://www.zekju.com/de/

Contact: c4l-support@t-systems.com

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05 SAP-Interface

Service Description

A source system for delivery notes that is widely used in the industry is SAP.

Standard delivery notes can be created using the "Supply Chain Planning and Control" module and the "Delivery Notes" view.

In this service, both Cloud4Log and SAP experts are available for connecting the company-specific systems.

The classic human-readable PDF format can be connected as well as machine-readable communication with the help of XML generators.

Service Features

- Provision and configuration of a solution to import delivery notes in PDF format into Cloud4Log and to export the processed delivery notes to SAP as PDF.
- The processed delivery note with all information (as a merged PDF) is returned to SAP and stored or archived in "Document Management".
- Provision and configuration of a solution to read and process delivery notes in XML format from SAP in Cloud4Log.

Service

1. Recording of requirements together with the consultant and the department.
2. Definition of the connection structure in cooperation with the consultant and the department. This structure is then used to set up the connection between different systems, for example SAP and Cloud4Log.
3. Key mapping between the two systems based on the defined structure. Mandatory fields and the fields to be mapped are listed with important information such as relevant tables, field lengths, field formats, etc.
4. Definition of a technical specification. All necessary technical conditions and requirements are recorded in the form of a document.
5. Establishing the connection between the systems. Aspects such as partner agreements, distribution models and transmission technologies are checked and defined during configuration.
6. Comprehensive verification and guarantee of data integrity through extensive testing of the connection. This ensures that the data is transferred correctly.
7. Supporting customers in the HyperCare phase during the first four weeks of production operations to ensure everything runs smoothly.

Value for the customer

Customer focus: Goods issue/sender and goods receipt/recipient, forwarding agents if necessary.

- Automatic data exchange with SAP via the interface: data on goods issue and receipt can be called up at any time.
- Avoiding manual errors.
- Time savings through machine representation of the data accumulated during the process.

Pricing model

individual offer

Further information

Cloud4Log Basic:
https://bvl-digital.de/cloud4log/

Registration
https://bvl-digital.de/cloud4log/#anmeldung

Cloud4Log Plus:
https://dls.plus.cloud4log.dev

Contact: c4l-support@t-systems.com

Cloud4Log Powered by BVL & GS1 Germany **PLUS**   **Contact:** Torsten Jaenicke-Rößler   📞 +49 175 26 23 014   ✉ Torsten.Jaenicke-Roessler@t-systems.com

Service Description

ImageMaster has been the T-Systems software for digitizing business processes and document management for over 25 years - from creating and archiving to deleting. Cloud4Log Plus and ImageMaster work together in this service.

In a first expansion stage, a company is reserved a client-capable area in ImageMaster. Immediately before the automatic deletion, the delivery notes that have been processed and provided with all attachments are automatically archived in ImageMaster. The company's users can then log into ImageMaster to manage the archived data.

Service Features

- Automatic backup of the delivery notes including all necessary information at the end of the retention period in Cloud4Log Plus (delivery notes are kept for exactly 10 weeks after the folder is created).
- Read access to all delivery notes of the respective service recipient already archived in ImageMaster.
- Input of search criteria based on the metadata, display of the corresponding search results.
- Subsequently, possibility of downloading the archived files.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.
- Prerequisite is the approval of the terms and conditions for the use of the ImageMaster as a separate service.

1. Onboarding ImageMaster with named users of the company, a multi-tenant group is created for the company or for the company's locations
2. Automatic archiving of all delivery notes that belong to a company and its locations, it is possible to remove individual locations
3. Search and download function in ImageMaster

Value for the customer

All companies without their own archiving (KMU):
- Timely, automatic transfer of delivery notes to the archive.
- Audit-proof archiving.
- Easy access to the client's archive.
- On request, extension to other events in the process flow is possible.

Pricing model

individual offer

Further information

Cloud4Log Basic: https://bvl-digital.de/cloud4log/
Cloud4Log Plus: https://dls.plus.cloud4log.dev

ImageMaster

https://www.t-systems.com/de/de/digital/digital-business-transformation/new-work/enterprise-content-management/imagemaster

Contact: c4l-support@t-systems.com

Cloud4Log PLUS
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07 Event-related payment

Service Description

The digital delivery note essentially goes through three statuses:

- Delivery note created (→ status open),
- Goods issue ended (passing of risk to the carrier/driver → status sent),
- Goods receipt ended (rough check; transfer of risk to goods receipt → status closed)

There is also the option of completing the (optional) fine-tuning by uploading a document as an attachment to the delivery note. The status remains closed.

Event-related events can be triggered for some of these changes. Thus, for example, a payment order associated with the delivery can be triggered automatically..

Service Features

- Trigger event-related (payment-relevant) event at:
  - Delivery note / folder in the status sent
  - Delivery note / folder in the status closed
  - The delivery note was subjected to a fine check
- The payment order can be triggered and signaled at a defined time after the occurrence of the event.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.

1. Initial meeting to coordinate the specific events and determine buffer times
2. Setting up the events and testing
3. Ongoing operation of the service

Value for the customer

consignor and freight forwarder:
- Invoicing and payment as soon as possible
- Early opportunity to deal with losses and complaints

Pricing model

individual offer

Further information

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Service Description

- Operational monitoring is provided for the service provider in C4L Basic. In order to keep an eye on business processes, we offer both general and customer-specific business monitoring with C4L Plus.
- Here, general dashboards for
  - the service provider
  - the company as well
  - the individual locations provided.
- Furthermore, customer-specific monitoring can be evaluated, developed and operated.

Service Features

- Providing a dashboard for service providers.
- Provision of a standard dashboard for companies and for company locations with the following content (number of each):
  - registered companies, delivery notes in total, folders in total,
  - Delivery notes with recorded load carrier exchange in goods issue/goods receipt in the reporting month,
  - Delivery note status open/sent/closed, folder status open/sent/closed, load carrier goods issue/goods receipt
- Provision of a customized dashboard including data analysis.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.

1. Initial workshop for the selection of standard monitoring or the definition of customer-specific monitoring requirements
2. Development and configuration of standard dashboards
3. Development and configuration, testing and initial support of customer-specific dashboards
4. Provision of standard dashboards
5. Provision of customized dashboards

Value for the customer

Customer focus: GS1 as a service provider, all companies

- Business Process Optimization
- trend analysis
- Advertising

Pricing model

individual offer

Further information

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Service Description

The RampSens product supports yard management by equipping the loading ramps of the loading and unloading zones with a special ramp sensor system. The core functionality is the detection of objects in front of the ramp, approaching/removing trucks and loading/unloading. Accordingly, the ramp status is marked as free, shunting, occupied or blocked. In addition, the number plate of the truck/trailer is recognized and displayed. Cloud4Log Plus is enabled to automatically evaluate and display this and other data from the ramp sensors. The dispatcher in incoming goods can optionally (service 03b) transmit the intended destination ramp to the driver in his wallet element and thus optimize the processes in the yard.

Service Features

- If the dispatcher/porter (receiver) wants to assign a ramp to the driver, he can enter this in C4L Plus as information about the folder in the inflow and thus have it transferred to the driver's wallet element in good time before delivery.
- Number plate recognition: RampSens recognizes the number plate of the truck/trailer. This information is automatically transferred to C4L Plus. The number plate can now be compared and displayed with the number plate already recorded for the folder in C4L Plus.
- The current ramp can be seen in both the driver's wallet element (Service 03b) and the C4L Plus application.
- Vehicle downtimes can be determined/documented at ramps in order to optimize future planning.

Service

- The prerequisite for using the service is the onboarding of the company to Cloud4Log Basic, we provide comprehensive advice.
- The prerequisite is the connection of the ramps of companies in the supply chain using the RampSens application.

1. Initial discussion to record the specific requirements, selection of the desired information in Cloud4Log Plus
2. Elaboration, development and provision of customer-specific scenarios
3. Provision of the information in the frontend and (when booking service 03b) in the wallet element

Value for the customer

Yard management:
- Avoidance of vehicle congestion, double routes and unnecessary delays in front of and on the company premises through early ramp allocation and control.
- Optimization of the prescribed break and rest times for drivers.
- Transparency regarding ramp occupancy at a glance.
- Automatic exchange of information between C4L Plus and RampSens.

Pricing model

individual offer

Further information

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Sustainability of paper delivery notes

Resource consumption of delivery notes exclusively in food retail

1395 tons of CO_2
are generated by paper delivery notes

2.7 million kg
Wood is necessary to produce paper delivery notes

1 billion liters
Water is used to produce paper delivery notes

180 m p.a.

✓ **Extension to other documents accompanying the freight**

Sustainability of digital delivery notes

Effects on sustainability through digitization of the delivery note

Future challenges for sustainability

- **Demand for paper** is expected to **double** between 2005 and 2030

- Paper production **requires natural resources** such as wood, water, energy and other materials

- Paper bleaching is the most water-intensive part of the papermaking process, using up to **13 liters of water** to produce a **single A4 sheet**

Sustainability benefits per 1 million delivery notes (A4)

- **Saving of 7.7 tons of CO_2 emissions** by switching from printed paper delivery notes to digital form

- **Reduction of 5,000 kg of paper** → less paper consumption → less paper waste generation

- Increase in water use efficiency by **saving up to 5,984 m³ of water**

Supported Sustainable Development Goals

6 CLEAN WATER AND SANITATION

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

#GREEN MAGENTA
DIGITAL DELIVERY NOTE.
PAPERLESS. SUSTAINABLE. FUTURE-PROOF.