



M2M Quick Start firstbase 2.0

version 2.0, March 2025

Die zentrale
Plattform

Datenaustausch ganz einfach

The banner features a yellow background with a white bottle and two smaller white containers on the right. On the left, there are two dark blue rectangular boxes containing the text "Die zentrale Plattform" and "Datenaustausch ganz einfach". On the right, there is a vertical column of small, light-colored text that appears to be a list of technical specifications or data points.

Overview

Document information	
Title	Quick Start firstbase 2.0
Version	2.0
Status	Finalised
last changed at	2025-03-13
path and file name	firstbase > General > 03_Technik > Schnittstelle

Authors and Contributors

Surname, first name	Organization
Sippl, Maik	GS1 Switzerland
Willutzki, Cornelia	GS1 Switzerland

Version 2.0

Version	Date	Creator	Summary of changes
2.0	March 2025	Maik Sippl	initial creation and finalisation

Revocation (disclaimer)

While every effort is made to ensure the accuracy of the GS1 standards contained in this document, GS1 and any other party involved in the preparation of this document makes no warranties (either express or implied). Any liability for direct, indirect or other damage or loss in connection with or resulting from the use of this document, regardless of the cause of action, including but not limited to accuracy, merchantability or fitness for purpose, is excluded.

The document may be revised from time to time, whether due to technological developments, changes in standards or new legal developments. Some products and company names mentioned herein may be registered trademarks and/or trademarks of their respective companies. GS1 is a registered trademark of GS1 AISBL.

In 2025, **firstbase** – the GDSN data pool of GS1 Switzerland – was upgraded. This document contains information for a quick start in setting up an M2M interface, whether you are sending or receiving data.

Development

New functionality is added to the system on a regular basis. firstbase works with a three-week release schedule. As soon as the development of a feature is completed, it is released to the test environment.

The latest changes to the software and other documentation can be found on this page:

<https://www.firstbase.ch/de/services/dokumente-links>

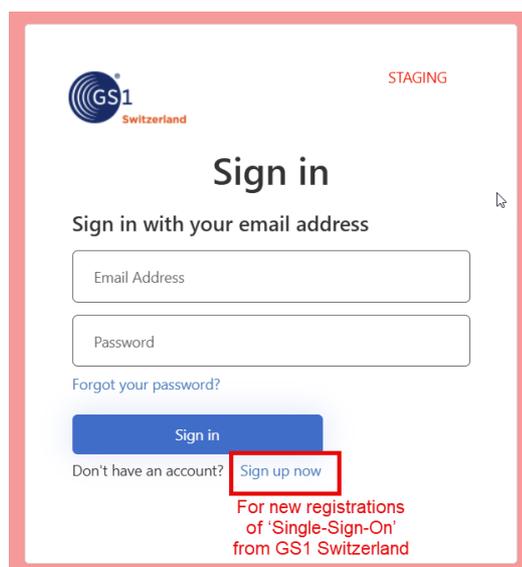
Overview of the data pool

Web User Interface (web UI)

Parameter	Test environment (UAT)	Production environment (Prod)
Data pool GLN	7612345000343	7612345000336
URL	https://test-firstbase.gs1.ch/	https://firstbase.gs1.ch/
User account	Based on data supplier / recipient GLN(s)	Based on data supplier / recipient GLN(s)
User name	Email address (Single-Sign-On)	Email address (Single-Sign-On)
User password	set by user	set by user

Multiple GLNs can be managed within a user account, both for data senders and receivers. It is also possible to use one GLN for both sending and receiving data, e.g. for wholesalers.

When the account is created, the user will receive a registration request from the 'firstbase' system by email. If the user already uses a single sign-on login with GS1 Switzerland, the first login in firstbase will be with this login. If the user does not already have a single sign-on, he/she must register once. After that, every login will be done with exactly this credential.



Differences between M2M connections and legacy environment

The new platform is different from the old environment in several ways:

- **One interface**

There are no longer different applications and user interfaces between firstbase healthcare and firstbase consumer goods. An item can be created and published in one application for different sectors.

- **M2M connectivity types**

Items can be delivered to the new environment via a selected M2M connection (FTPS, AS2 or REST API), appear in the user interface shortly afterwards and can be edited, extended and published as required.

- **XML or JSON formats**

For users of an M2M interface, the formats of the GDSN BMS XML and JSON messages are different if they have not already worked with BMS CIN XML in the old environment. All users still are able to download valid XML or JSON files directly from the user interface.

- **Types of publication**

Items can be published with three levels of visibility to recipients: public, restricted to a selected group of recipients (GLNs) or private, i.e. 1:1 to a selected GLN - depending on requirements.

- **One GLN for sending and receiving**

A company's account, e.g. for wholesalers or intermediaries, can be used with one GLN for both sending and receiving data. The functions of both roles are then available in one interface.

- **Service Provider GLN**

A service provider can be assigned its own GLN as an independent account. The GLN(s) of its customers will be linked to this account. This way, for example one AS2 connection can be used for all these customers.

- **Target Markets**

Items for different target markets are separated in the current solution. In the new environment, 3 layers are distinguished: global, target market dependent and trading partner dependent. The attributes in the global layer are only stored once and are therefore the same for all target markets. In the interface, the help button shows in which layer the relevant attribute is in. When updating via a CIN message, the last version sent is always leading.

- **Validations**

The new platform includes a validation engine that is invoked both in the interface and in M2M traffic. In both cases, items with a validation error cannot be published.

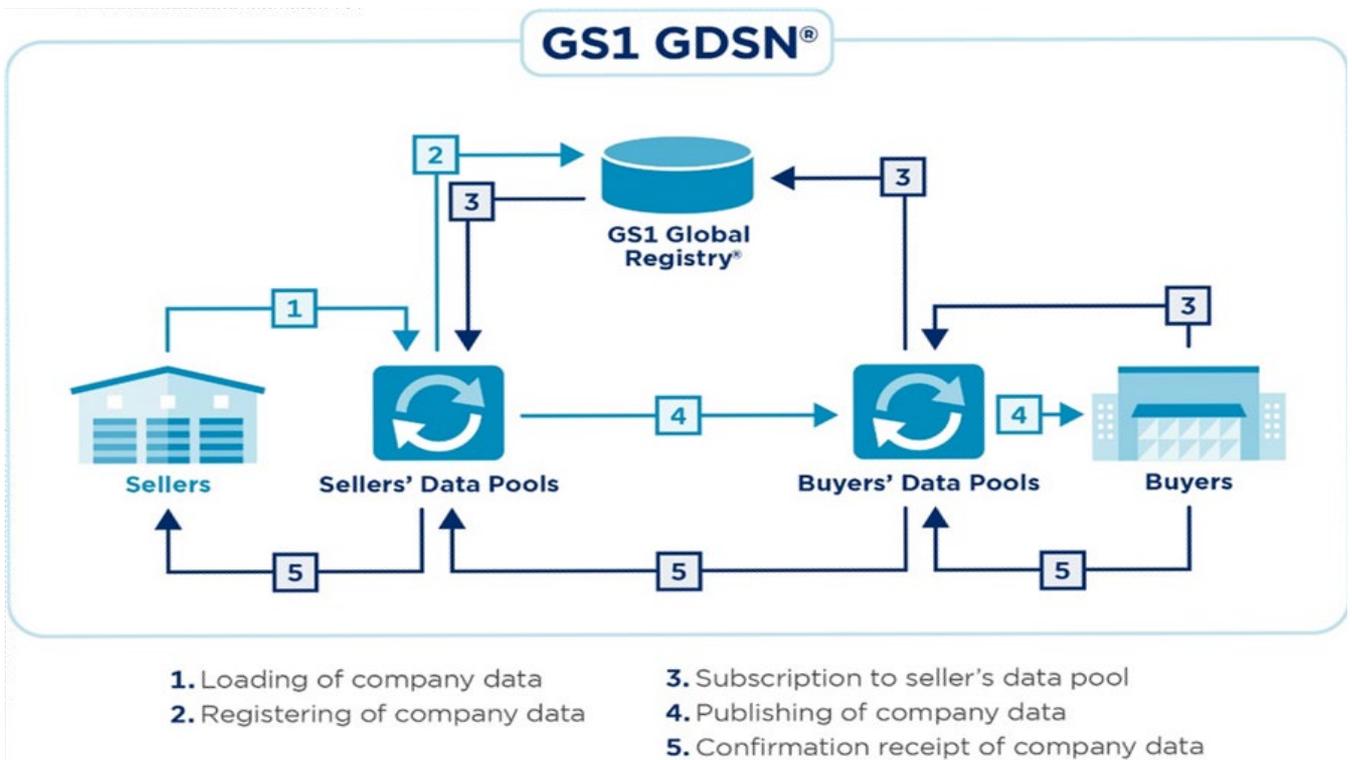
Questions?

Do you have any questions? Ask them using our [contact form](#). Your question will go straight into our ticket system and we will get back to you as soon as possible.

M2M basics

GDSN Message Choreography

The Global Data Synchronisation Network uses a standardised message flow between suppliers (sellers) and recipients (buyers) and their data pools:



Source: <https://www.gs1.org/services/gdsn>

Type of messages

The GDSN operates based on Business Message Standard (BMS) XML messages. The following messages are distinguished. For M2M implementation the **CIN-message** and its associated Response-Message are mandatory.

Step	Abbreviation	Name	Function	Sent by	Sent to
0	BPR*	Basic Party Registration	Information about the party (Data pool GLN, Party GLN, Name, Address, Role).	DSDP	GR
1,4	CIN*	GDSN Catalogue Item Notification	Information about an item (hierarchy) saved in DSDP and forwarded to DRDP and DR if pub-sub-match exists.	DS DSDP DRDP	DSDP DRDP DR
1	CIP	GDSN Catalogue Item Publication	(Pub) Publication of an item to one or more recipients.	DS	DSDP
2	RCI*	Registration of item data	Information about the item (key data only GLN, GTIN, GPC, TM).	DSDP	GR
3	CIS	GDSN Catalogue Item Subscription	(Sub) Message allowing a recipient to subscribe to the details of one or more suppliers.	DR DRDP GR	DRDP GR DSDP
5	CIC	GDSN Catalogue Item Confirmation	Message by which a recipient confirms receipt of an item.	DR DRDP DSDP	DRDP DSDP DS
-	RFCIN	GDSN Request for CIN	Request by which a recipient instructs the data pool to resend all items published to it.	DR DRDP GR	DRDP GR DSDP
-	CIHW	GDSN Catalogue Item Hierarchy Withdrawal	Message to remove publications from a hierarchy. Normally leads to deletion of the item synchronisation in DRDP.	DS DSDP DRDP	DSDP DRDP DR
1,3,4,5	RESP* (abbreviation in FTPS)	GS1 Response message	Response message related to CIN, CIP, CIS, CIC, CIHW which is sent by the data pool when an XML message has been processed.	DSDP DRDP	DS DR

* mandatory messages

GR GS1 Global Registry®
DS Data Supplier (Seller)
DR Data Recipient (Buyer)
 DSDP Data Supplier Data Pool
 DRDP Data Recipient Data Pool

XML schema

The schema for the BMS XML messages (XSD-files) for the current or future release status can be found on the following website: <https://www.gs1.org/standards/gdsn>

In the web interface you can create an item and use the export button to download it as an XML message.

Data models

In Switzerland, so-called target market profiles (data models) based on the GDSN BMS standard are used for each sector. The specifications can be found on the firstbase website under 'Documents & Links': <https://www.firstbase.ch/de/services/dokumente-links>

M2M interfaces and their parameter

Types of interfaces

The different interfaces are distinguished from the user interface (Web UI) as follows. Data suppliers and data recipients can choose their connectivity between **FTPS** or **AS2** or they use the REST **API** to upload, download (retrieve) their data.

Connection type	Data Supplier	Data Recipient
Web UI	Upload Formats: CIN, CIP, CIHW per Editor und/oder Excel (XLSX-file) Download Formats: CIN, CIC per Editor , CIN per Excel , PDF, GDSN CIN XML or JSON	Upload Formats: CIS, RFCIN per Editor Download Formats: CIN per Excel (XLSX-file), PDF, GDSN CIN XML or JSON
FTPS	Format: GDSN BMS XML Upload: CIN* , CIP Download: REQ, RESP* , CIC	Format: GDSN BMS XML Upload: CIS, RFCIN Download: CIN* , REQ, RESP*
AS2	Format: GDSN BMS XML Upload: CIN* , CIP Download: REQ, GS1 Response* , CIC	Format: GDSN BMS XML Upload: CIS, RFCIN Download: CIN* , REQ, GS1 Response
REST API	Format: JSON (or GDSN CIN XML) Upload: Catalogue Item API* , Media API Download: My Products API v2.0	Format: JSON Upload: - Download: My Products API v2.0* , Media API

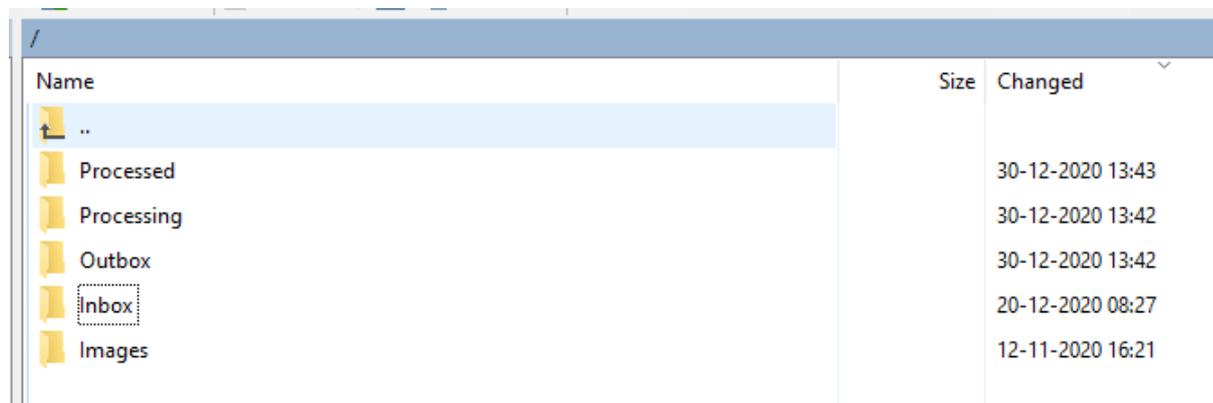
* mandatory messages

FTPS interface

FTPS is used as a file transfer for sending and receiving articles (hierarchies) and media assets. The valid format is the BMS XML messaging standard. The following parameters are used for the configuration in a file transfer tool such as Filezilla. **FTPS** users in Sync **need to create a password for a specific user** using the forgotten password function via email. It can be started from the URL.

Parameter	Test environment (UAT)	Production environment (Prod)
URL	ftp://test-ftp-firstbase.gs1.ch	ftp://ftp-firstbase.gs1.ch
IP	52.236.182.195	4.180.83.206
Port	21	21
Data communication port range (Firewall setting)	4000 – 5000	4000 – 5000
Encryption	TLS/SSL Explicit encryption	TLS/SSL Explicit encryption
User name	GLN\ [<i>email address</i>]	GLN\ [<i>Email-Adresse</i>]
User password	same as on web UI	same as on web UI
Password reset: Import for the initial configuration of SSO login. Use the same password as for the web UI.	Platform Auth (UAT) password reset for FTPS	Platform Auth (PROD) password reset for FTPS

FTPS folder structure



Name	Size	Changed
..		
Processed		30-12-2020 13:43
Processing		30-12-2020 13:42
Outbox		30-12-2020 13:42
Inbox		20-12-2020 08:27
Images		12-11-2020 16:21

For data providers

- Processing: Outbox messages that are being processed
- Processed: Outbox messages that are processed, plus their associated GS1 Responses (REQ, **RESP***)
- Outbox: contains all messages sent to the data pool (**CIN***, CIP)
- Inbox: contains all new received messages (CIC)
- Images: exchange of images using the [current image file naming convention](#) e.g. [GTIN14]_C1C1

For data recipients

- Processing: Outbox messages that are being processed
- Processed: Outbox messages that are processed, plus their associated GS1 responses (REQ, RESP)
- Outbox: contains all messages sent to the data pool (CIS, RFCIN)
- Inbox: contains all new received messages (**CIN***)

AS2 interface

AS2 can alternatively be used as a file transfer for sending and receiving articles (hierarchies) and media assets. The valid format is the BMS XML messaging standard. The following parameters are used to configure this connectivity standard.

Parameter	Test environment (UAT)	Production environment (Prod)
URL	http://test-as2-firstbase.gs1.ch:9080/Receiver https://test-as2-firstbase.gs1.ch:9081/Receiver	http://as2-firstbase.gs1.ch/Receiver https://as2-firstbase.gs1.ch/Receiver
AS2 Name	7612345000343	7612345000336
Certificate	CA Root (UAT): CARoot TC.cer Client: Trade Connectors AS2 UAT.cer	TC DatapoolDepartment.cer TC DatapoolDepartment.p7b Hint: most of the clients only need the .cer file (the .p7b file contains the root, intermediate and the client sign certificate)
Inbound IP (url shall not be replaced with ID)	51.144.117.159	52.174.38.79
Outbound IPs	13.81.15.173	52.233.171.11 40.68.207.108
Version	1.2	1.2
Encryption	3DES	3DES
Message Digest	SHA-256	SHA-256
Signed	Yes	Yes
Compressed	Yes	Yes
MDN	synchronous	synchronous
MDN Signed	Yes	Yes
Chunked encoding	Yes	Yes

API interface

The following various **REST APIs** below allow item (hierarchies) and media assets to be sent and received. The valid format here is **JSON** (or the BMS CIN XML if required). For each API, the respective base URLs can be used, differentiated by test and prod environment, and the 'Swagger UI' URLs can be used to help with configuration:

Parameter	Catalogue Item API	Media API	My products API v2.0
Test Base URL	https://test-webapi-firstbase.gs1.ch:5443	https://test-firstbase.gs1.ch	https://test-productapi-firstbase.gs1.ch
Test Help page (Swagger UI)	https://test-webapi-firstbase.gs1.ch:5443/helpPages/catalogueItemApi/index#	https://test-firstbase.gs1.ch/swagger/ui/index	https://test-productapi-firstbase.gs1.ch/helpPages/productapi/index
Prod Base URL	https://webapi-firstbase.gs1.ch	https://firstbase.gs1.ch	https://productapi-firstbase.gs1.ch
Prod Help page (Swagger UI)	https://webapi-firstbase.gs1.ch/helpPages/catalogueItemApi/index#	https://firstbase.gs1.ch/swagger/ui/index	https://productapi-firstbase.gs1.ch/helpPages/productapi/index
Usage	Data pool users (here: Supplier) can upload items (hierchies) to their own accounts. They can create draft or live version and also publish them to specific targets.	The Media APIs can be used to <ul style="list-style-type: none"> • send, update/modify and retrieve media items (photos, PDFs,etc.) • add/remove media assets to items • share media assets handle subscriptions to media assets	This APIs are intended to be used by the Data Pool users to quickly retrieve product data from the system and to provide a connector interface to keep the internal data in an integration system in sync with the product data in the GDSN Data Pool. Suppliers can retrieve items from their own accounts. Recipients can query all items published to them.

API users in Sync can start using **token**-based authentication, but first, they **need to create a password for a specific user** using the forgotten password function via email. It can be started from the URL.

Parameter	Test environment (UAT)	Production environment (Prod)
Password reset: Important for the initial configuration of SSO login. Use the same password as for the web UI.	Platform Auth (UAT) password reset for API	Platform Auth (PROD) password reset for API

Additional note: Enter the bearer token with the prefix "bearer" followed by empty space: