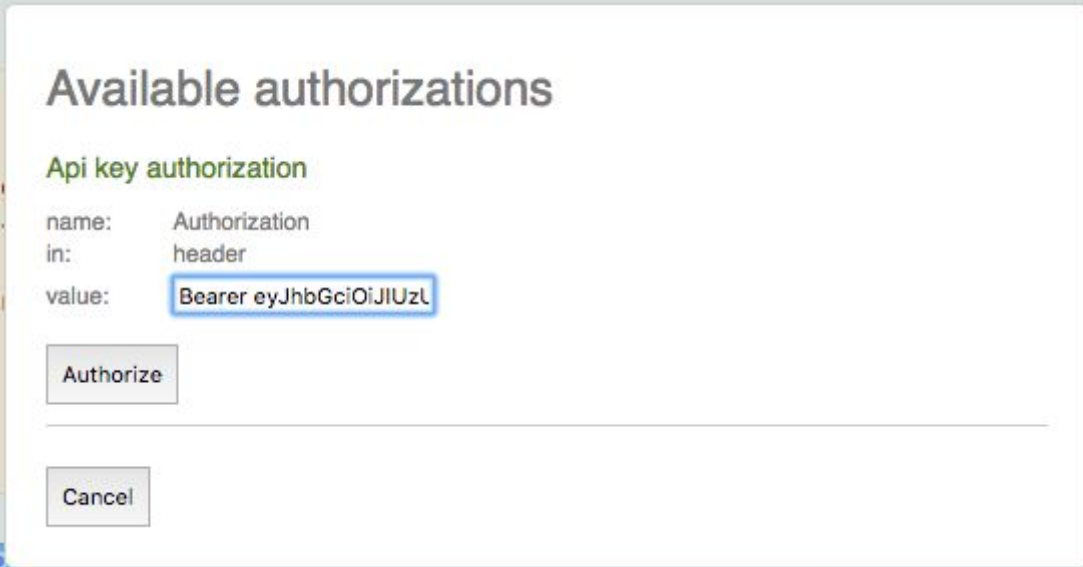# Telema EDI REST API

Telema EDI REST API allows client to send and receive document to and from Telema server.
In order to use EDI REST API client must have correct channel configured in Telema system. ClientID and secret key values can be obtained from channel configuration view in Telema Portal. These values are used to authorize client when starting a new data session.

Up-to-date technical documentation is accessible from Swagger (for example: https://prelive-api.telema.com/edi/swagger-ui.html). Through Swagger page developer can easily make actual requests to the API. Note that using endpoints which require authentication also require that user authenticates himself in Swagger.
Authenticating in Swagger requires that user makes a successful login request to the api - /auth/accesToken. Having received accessToken user should open Swagger Authorize functionality:

User should then replace "api_key" with "Bearer [accessToken]" and click Authorize. This will ensure that all subsequence requests made with Swagger have Authorization header with accessToken.
Telema EDI REST API is accessible from following URLs:
Prelive: https://prelive-api.telema.com/edi/api/v1
Live: https://api.telema.com/edi/api/v1

1. Authorization

For authorization user needs clientId and clientSecret values from Telema Portal.
To start a new data session user needs to obtain access tokens using the following service:

1.1. POST /auth/accessToken

Starts a new data session.

Example query:

```
{
  "clientId": "gw-auto_eflow-2",
  "clientSecret": "secret-key"
}
```

If the presented credentials are valid server will respond with a success response:

```
{
  "data": {
    "accessToken":
"eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJndy1hdXRvX2VmbG93LTIiLCJhcGlzIjoiZWRpIiwiaWF0Ijo
xNTEwNTA4NDk3LCJleHAiOjE1MTA1MTIwOTd9.hb_WgWyD7Lpuey16Un0pl9ML9nho6GNUFJEAnsXIxuC
CCcI1qX0By3bGVZ2OVbhcG4Lufy-LLVlA5wbVvcoJiQ",
    "createdAt": "2017-11-12T19:41:38+0200",
    "expiresIn": 3598,
    "refreshToken": "8cc4af2a-240a-4c7e-8ae4-b72e23d55a9a",
    "tokenType": "Bearer"
  },
  "metadata": null
}
```

Field	Description
accessToken	JSON Web Token containing authenticated information about client channel. Contains clientId (channel name) as subject, issue date and token expiration time. Also contains custom claim "apis": "edi", which identifies for which Telema APIs this token is usable.
createdAt	Data session creation time. Essentially the same as JWT issuedAt timestamp
expiresIn	Value in seconds for how long created accessToken is valid. Can also be calculated from JWT expires timestamp
refreshToken	This token, together with accessToken, can be used to extend data session without presenting client credentials. See /auth/refresh service
tokenType	Always "Bearer". Shows how accessToken should be used. In this case it is to be used in Authorization header using prefix "Bearer".

When authorization fails, server will respond with status code 401 and comparable response:

```
{
  "statusCode": -7,
  "message": "Authentication error: channel: gw-auto_eflow-2, incorrect channel
name",
  "session": null
}
```

Field	Description
statusCode	statusCode can contain following values: ● -1 ○ Server error ● -2 ○ System down ● -3 ○ Contract suspended ● -4 ○ Authentication error ● -5 ○ Channel disabled ● -6 ○ Channel closed ● -7 ○ Channel not found ● -9 ○ Active contract not found
message	Human-readable description for error message

1.2 POST /auth/refresh

Extends current data session without using client credentials.

Example query:

```
{
  "accessToken":
"eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJndy1hdXRvX2VmbG93LTIiLCJhcGlzIjoiZWRpIiwiaWF0Ijo
xNTEwNTA4NDk3LCJleHAiOjE1MTA1MTIwOTd9.hb_WgWyD7Lpuey16Un0pl9ML9nho6GNUFJEAnsXIxuC
CCcI1qX0By3bGVZ2OVbhcG4Lufy-LLVlA5wbVvcoJiQ",
  "clientId": "gw-auto_eflow-2",
  "refreshToken": "8cc4af2a-240a-4c7e-8ae4-b72e23d55a9a"
}
```

Field	Description
accessToken	Access token received from initial accessToken service
clientId	ClientId value for current data session
refreshToken	Refresh token received from initial accessToken service

API will check that refreshToken is valid and associated with presented clientId and accessToken. If successful, API will respond with a response similar to accessToken service, but with a new set of access- and refreshTokens.

```
{
  "data": {
    "accessToken":
"eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiJndy1hdXRvX2VmbG93LTIiLCJhcGlzIjoiZWRpIiwiaWF0Ijo
xNTEwNTA4ODQyLCJleHAiOjE1MTA1MTI0NDJ9.WoBpwGYSqs7f1kgojKaoeERx_UUOGLixSc9L4RqljTL
g_QL2baUT-Nd4NY4U7GMzXMoct3gfLQqyM4wCYSCLLg",
    "createdAt": "2017-11-12T19:47:22+0200",
    "expiresIn": 3599,
    "refreshToken": "7948697e-b8fc-4e74-9be2-df5429244fb3",
    "tokenType": "Bearer"
  },
  "metadata": null
}
```

If presented tokens are invalid or expired, API responds with a negative response:

```
{
  "errors": null,
  "code": "unauthorized",
  "message": "Invalid or expired refresh token presented"
}
```

2. Data services

Data services require that client has established a data session. Session credentials (accessToken) are submitted in request "Authorization" header with prefix "Bearer". For example: "Authorization: Bearer eyJhbGciOiJIUzUxMiJ9…."

2.1 GET /data

With getData service client can fetch documents from Telema server. In case of automatically scheduled getData service the interval of activation must be 10 minutes. Limit for maximum number of documents returned is configured in channel settings.

If successful API responds with the following successful response:

```json
{
  "data": {
    "documents": [
      {
        "id": 807621,
        "filename": "invoice-8117-20152072.xml",
        "documentType": "invoice",
        "document": "[Base64 encoded XML document]"
      }
    ],
    "sessionId":
"GWPX2016_3139322e3136382e312e323431-5c60d443-d6f2-4492-9334-fccb1e465574",
    "sessionTime": "2017-11-12T19:48:59+0200"
  },
  "metadata": {
    "hasMore": false
  }
}
```

Response contains two distinct parts. "Data" part that contains actual retrieved documents and "metadata" part that contains relative information associated with current getData query.

Data part

Field	Description
sessionId	getData session identifier. Used to give feedback to Telema about received documents.
sessionTime	getData session execution timestamp.
documents	Container element for retrieved documents
Documents container description	
id	Reference to document in Telema system.
filename	Documents file name
documentType	Document type code name. For example "invoice".
document	Actual XML document in Base64 encoding

Metadata part

Field	Description
hasMore	Boolean field. Show if there are any additional documents waiting for retrieval.

2.2 POST /data/feedback

For each document fetched with getData service, client must give feedback to Telema, whether the document has been successfully received or rejected. If there were any problems or warnings this information should also be reported back.

Document(s) successfully received response

```
{
  "sessions": [
    {
      "documents": [
        {
          "id": 807621,
          "status": "received"
        }
      ],
      "sessionId":
"GWPX2016_3139322e3136382e312e323431-5c60d443-d6f2-4492-9334-fccb1e465574",
      "time": "2017-11-12T19:48:59+0200"
    }
  ]
}
```

Field	Description
sessions	Container element for getData sessions.
Sessions element description	
sessionId	getData session identifier
time	getData session execution timestamp
documents	Container element for document received in getData session
Documents element description	
id	Reference to document in Telema system
status	"received".

Full getDataFeedback message description

```
{
  "sessions": [
    {
      "documents": [
        {
          "errors": [
            {
              "code": "error code",
              "details": "error details",
              "time": "2017-11-12T17:48:49+0200"
            }
          ],
          "id": 807621,
          "status": "sendagain",
          "warnings": [
            {
              "code": "warning code",
              "details": "warning details",
              "time": "2017-11-12T17:48:49+0200"
            }
          ]
        }
      ],
      "globalErrors": [
        {
          "code": "global error code",
          "details": "global error details",
          "time": "2017-11-12T17:48:49+0200"
        }
      ],
      "sessionId":
"GWPX2016_3139322e3136382e312e323431-5c60d443-d6f2-4492-9334-fccb1e465574",
      "time": "2017-11-12T19:48:59+0200"
    }
  ]
}
```

Field	Description
sessions	Container element for getData sessions.
Sessions element description	
sessionId	getData session identifier
time	getData session execution timestamp
globalErrors	Global errors encountered during receiving or processing documents

documents	Container element for document received in getData session
GlobalErrors element description	
code	Error code value in client system
details	Error details
time	Error timestamp
Documents element description	
id	Reference to document in Telema system

status	Allowable values:
	● received
	  ○ Document was successfully received by client
	● sendagain
	  ○ Failure to receive document(s) due to technical reason and document should be sent by Telema system again.
	● rejected
	  ○ Rejected due to document content. Document failed to be validated by client and Telema systeme should not resend this document

warnings	Container for all warnings that occurred during document receiving or processing
Warnings element description	
code	Warning code value in client system
details	Warning details
time	Warning timestamp

2.3 POST /data

putData service provides the client with functionality to submit documents to Telema system. In case of automatically scheduled putData service the interval of activation must be 10 minutes.

putData query:

```
{
  "charset": "UTF-8",
  "document": "[Base64 encoded document]",
  "filename": "[document file name]"
}
```

Field	Description
charset	Encoding of the encoded document. Optional, UTF-8 assumed

document	Actual XML document in Base64 encoding
filename	Document file name

If successful API response with the following message:

```
{
  "data": {
    "statusCode": 1,
    "message": "putData OK",
    "session":
"GWPX2016_38342e35302e3233312e3433-c1996c36-7df9-494c-894d-d9ba849e731b"
  },
  "metadata": null
}
```

Only data part of response message is used.

Field	Description
statusCode	1
message	"putData OK"
session	putData session identifier, for reference

There can be several situations that result in a negative response:

```
{
  "statusCode": 0,
  "message": "putDataResponse status '0' message '[ReceiverGLN: 9961234561235;
DocumentNumber: 20152072d] Unknown document sender. Please check channel rights
in Telema.'",
  "session": null
}
```

Field	Description
statusCode	Following statusCode values are used: ● 0 　○ Internal communication error in Telema system. Detailed explanation in message field. ● -1 　○ Internal communication error in Telema system. Detailed explanation in message field ● -8 　○ Supplied document exceeds the configured maximum allowed limit for file size
messsage	Detailed information about error