

API



EPC Directory Service: Specifications of the EDS Local File

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Public

EDS Local File Specifications

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1 Introduction

These technical specifications describe the European Payments Council (EPC) Directory Service (EDS) Local File. The EDS is a key component for Payments Service Providers (PSPs) and Routing and/or Verification Mechanisms (RVMs) to operate the EPC Verification Of Payee (VOP) scheme, a scheme that enables the PSPs to comply with the Instant Payment Regulation (IPR) requirement to offer an IBAN-name check service, before payers may authorise a payment by credit transfer or instant credit transfer.

This document is intended for anyone who installs and administers the file and those who need to understand the data content.

2 Preface

2.1 Purpose of the document

These technical specifications describe the structure of the EDS data resulting from a download or query of the EDS and expected to be saved and used locally (“EDS Local File”) by the scheme participants.

The EDS is a key component for PSPs to operate different EPC schemes. It initially covers the EPC VOP scheme, a scheme that enables the PSPs’ to comply with the IPR requirement to offer an IBAN-name check service, before payers may authorise a payment by credit transfer or instant credit transfer (SCT or SCT Inst). This scheme is expected to enter in force by October 2025.

The EPC VOP scheme relies on exchanging VOP messages between payer and payee PSPs in accordance with the rules set out in the VOP rulebook and implemented on the basis of application programming interfaces (APIs) designed by the EPC.

In the architecture of the VOP scheme, the EDS enables:

- Reachability and interoperability between VOP scheme participants.
- It stores and makes available to authorised business users in a secure manner data for:
 - Identification of participant PSPs via a BIC11 and PSD2 National Authorisation Number or NAN
 - Adherence to the EPC VOP scheme
 - Roles and options
 - API endpoints (or Uniform Resource Identifier or URIs).

The EDS will be accessible to scheme participants adhering to the VOP scheme and to the Routing and Verification Mechanisms (RVMs) operating on their behalf.

The EDS will not store any personal data or IBAN, as it will only be used for routing purposes between business entities (PSPs and RVMs). Furthermore, the EDS will be also used for other EPC API-based schemes, such as the SEPA Request-to-Pay (SRTP) and the SEPA Payment Account Access (SPAA) schemes.

2.2 Audience

This document is intended for anyone who installs and administers the EDS files and those who must understand the content.



3 Significant Changes

The following tables list all significant changes to the content of the EDS Technical Specifications since the following previous editions. These tables do not include editorial changes that were made to improve the usability and comprehension of the document.

| Updated information since ... | Location |
|-------------------------------|----------|
| | |
| | |

4 The EDS in the context of the VOP scheme

The EPC VOP scheme mandates the use of APIs for the exchange of scheme-related messages. This created new challenges, to ensure reachability, interoperability, and the well-functioning of the scheme between scheme participants:

- On the “requesting” side, a scheme participant needs to know what the API endpoints (URLs) of the “responding” participant are and needs certainty that this scheme participant is an adherent to the scheme, properly registered in the Register of Participants (RoP) of the EPC.
- On the “responding” side, a scheme participant needs certainty that the sender (API caller, “requesting” scheme participant) is trusted, and is adherent to the scheme, properly registered in the RoP of the EPC.

On both sides, scheme participants need to know if certain roles and scheme options are available or not at the counterpart’s side, for interoperability purposes.

Therefore, for operating the scheme, in addition to the information that the EPC regularly stores and publishes as scheme manager through its RoP, new information needs to be managed and made available to participants, such as the API endpoints of the VOP service and identity related information.

The EDS puts together the adherence related information from the EPC RoP and these additional information, managed by the participants themselves.



5 About the EDS local file

5.1 Encoding

The files are encoded in the UTF-8 format.

5.2 File Format(s)

The following types of files will be provided:

- XML file together with an XML scheme definition file
- JSON file together with a JSON scheme validation file
- CSV file (flat file)

Notes:

- All files will include exactly the same information extracted from the EDS.
- While the CSV file may be easier to import and manipulate e.g. optimising look-up through a search on a primary key, the XML and JSON versions are:
 - a) the most compact ones, as they avoid repetitions
 - b) they allow building an optimised look-up function, e.g. using hash tables
- By providing different yet equivalent formats of the same table, the EPC intends to maximise the options available for PSPs and RVMs, keeping into account geographical, technical and size diversity of PSPs and RVMs using them. The ultimate choice on which type of file to import and use, is up to the PSP or RVM that import these files.

5.3 EDS File Naming Convention

This section describes the file naming convention for the EDS daily full file.

<directory-filename>-<version>-<frequency>-<filetype>-<date>.<format>

| Variable | Description |
|----------------------|---|
| <directory_filename> | The name of the directory file |
| <version> | The version of the file |
| <frequency> | <ul style="list-style-type: none"> • DAILY |
| <filetype> | <ul style="list-style-type: none"> • F (FULL) The file contains all data updated with changes from the previous day if any. |
| <date> | <YYYY-MM-DD> format The publication date is specified in the file name. |
| <format> | XML, JSON and CSV |

| Formats |
|----------------------------------|
| EDS-V1-DAILY-F-<YYYY-MM-DD>.xml |
| EDS-V1-DAILY-F-<YYYY-MM-DD>.json |
| EDS-V1-DAILY-F-<YYYY-MM-DD>.csv |



6 EDS local file – Field definitions - CSV file

| Field name | Data type | Maximum length | Always present | Description |
|---------------------|--------------|----------------|----------------|--|
| participantBic | Alphanumeric | 11 | Yes | The BIC11 used to sign the adherence agreement in the scheme. |
| participantName | Any | 140 | Yes | The name of the participant institution as extracted from the RoP. |
| countryCode | Alphabetic | 2 | Yes | The ISO 3166-1 alpha-2 country code of the participant. |
| psd2Nans | Any | 70 | No | <p>The PSD2 NAN is a unique identifier assigned to Payment Service Providers (PSPs) by their National Competent Authority (NCA). This number is included in the Qualified Website Authentication Certificate (QWAC) under the Payment Services Directive 2 (PSD2).</p> <p>The NAN is mandatory for the VOP scheme, for other schemes it is not mandatory.</p> <p>There can be multiple NANs per participantBic</p> <p>Pipe separated: NAN1 NAN2 ...</p> |
| operationalContacts | Any | 1630 | No | <p>Up to 5 operational contacts. Double pipe separated:</p> <p>EMAIL1 EMAIL2 EMAIL3...</p> <p><i>(GDPR investigation ongoing)</i></p> |
| scheme | Alphanumeric | 10 | Yes | <p>The short code used to identify the different payment-related schemes:</p> <ul style="list-style-type: none"> • VOP: Verification Of Payee • SRTP: SEPA Request-to-Pay • SPAA: SEPA Payment Account Access <p>Payment-related schemes support payment processes, but to not directly handle payments.</p> |
| roles | Any | 200 | No | <p>The roles of the institution in the scheme as extracted from the EPC registry according to the Scheme rulebook. The roles will depend on the scheme (e.g., VOP: “Requesting PSP”, “Responding PSP”).</p> <p>Role names are mandatory when applicable to the related scheme.</p> <p>Pipe separated</p> <p>See Appendix B (9.1) for the list of codes for the VOP scheme and their description. Both code and description are visible in the EDS GUI.</p> |



| | | | | |
|---------------|------------|------|-----|--|
| options | Any | 600 | No | <p>The scheme option codes made available in order to interoperate as extracted from the EPC registry.</p> <p>Examples of scheme options are e.g., specific business rules, features, attributes, and datasets which are marked as optional in the respective scheme rulebook.</p> <p>The option code is mandatory when available.</p> <p>Pipe separated.</p> <p><u>Format:</u> OPTION CODE READINESS DATE LEAVING DATE</p> <ul style="list-style-type: none"> readinessDate of an option is the date of the activation of the scheme option. readinessDate is mandatory when an option is available. leavingDate of an option is the date of the removal of the scheme option. leavingDate is optional. Date format: YYYY-MM-DD <p><u>Example:</u> INACNO 2025-04-27 VERLEI 2025-08-15 2025-09-22</p> <p>Option INACNO has "readiness date", VERLEI has both "readiness date" and "leaving date".</p> <p>See Appendix B (9.2) for the list of option codes and their description. Both code and description are visible in the EDS GUI</p> |
| readinessDate | Date | 10 | No | <p>The date on which the participant's adherence to the scheme began or will begin. Date format: YYYY-MM-DD</p> <p>Readiness date is mandatory.</p> |
| leavingDate | Date | 10 | No | <p>The date on which it is intended the Scheme Participant will terminate their adherence to the scheme and will cease to be a participant in that scheme. Date format: YYYY-MM-DD</p> |
| environment | Alphabetic | 1 | Yes | <p>L = live environment</p> <p>T = test environment</p> |
| operation | Any | 70 | Yes | <p>The type of the scheme operation request related to the URL API endpoint.</p> <p>The operation for VOP is "postVerificationOfPayeeRequests"</p> |
| apiUri | Any | 2048 | Yes | <p>The URL specifying the API endpoint that exposes the functionality needed to carry out the Scheme Operation.</p> <p>There can be multiple URIs per participantBic, each of which being on a distinct line of the file in the CSV format.</p> |



| | | | | |
|-------------------|--------------|------|-----|---|
| apiVersion | Numeric | 2 | Yes | API version number. (e.g. in case of evolution of the Rulebook) |
| priorityNumber | Numeric | 2 | Yes | Where more than one set of API details have been provided for a single Scheme Operation, the priority number indicates the priority order in which the multiple sets of details should be considered for use. E.g. Number 1 indicates the PRIMARY URL to be used, number 2 indicates a BACKUP URL to be used. |
| accountHoldingBic | Alphanumeric | 11 | Yes | The BIC11 of the institution holding the beneficiary's account. |
| startDateTime | Date/time | 19 | Yes | Attribute to be used to indicate the validity periods of different versions of a given URL-level detail. The validity of the different versions of the URL is between the start date of the future URL and the end date of the current URL. ISO 8601 UTC date and time format YYYY-MM-DDThh:mm:ssZ |
| endDateTime | Date/time | 19 | No | Attribute to be used to indicate the validity periods of different versions of a given URL-level detail. This field is optional for the future version of the URL and mandatory for the current version (when a future version is presented). The validity of the different versions of the URL is between the start date of the future URL and the end date of the current URL. ISO 8601 UTC date and time format YYYY-MM-DDThh:mm:ssZ |
| note | Any | 1000 | No | Additional description or usage information. |



7 EDS local file – Field definitions - XML file

7.1 EDS local file - general description of the fields

| Field name | Data type | Maximum length | Always present | Description |
|----------------------------|-----------|----------------|----------------|--|
| schemeParticipants product | Any | 12 | Yes | “eds-v1” |
| fileType | Any | 5 | Yes | “Full”: the file contains all data updated with changes from the previous day if any. |
| fileDate | Date | 10 | Yes | Date when the file is generated, usually the day before publication. Date format: YYYY-MM-DD |
| effectiveDateTime | Date/time | 19 | Yes | Date and time when the records become effective. ISO 8601 UTC date and time format YYYY-MM-DDThh:mm:ssZ |

7.2 EDS local file - detailed content fields definition

| Field name | Data type | Maximum length | Always present | Description |
|--|--------------|----------------|----------------|--|
| participantBic | Alphanumeric | 11 | Yes | The BIC11 used to sign the adherence agreement in the scheme. |
| participantName | Any | 140 | Yes | The name of the participant institution as extracted from the EPC RoP (Register of Participants). |
| countryCode | Alphabetic | 2 | Yes | The ISO 3166-1 alpha-2 country code of the participant. |
| psd2Nans\psd2Nan | Any | 70 | No | The PSD2 NAN is a unique identifier assigned to Payment Service Providers (PSPs) by their National Competent Authority (NCA). This number is included in the Qualified Website Authentication Certificate (QWAC) under the Payment Services Directive 2 (PSD2). The nan is mandatory for the VOP scheme, for other schemes it is not mandatory. There can be multiple NANs per participantBic. |
| operationalContacts \operationalContact | Any | 320 | No | Up to 5 operational contacts. (<i>GDPR investigation ongoing</i>) |
| schemes\scheme\ code | Alphanumeric | 10 | Yes | The short code used to identify the different payment-related schemes: <ul style="list-style-type: none"> • VOP: Verification Of Payee • SRTP: SEPA Request-to-Pay • SPAA: SEPA Payment Account Access Payment-related schemes support payment processes, but to not directly handle payments |



| | | | | |
|---|--------------|------|-----|---|
| schemes\uris\uri\ environment | Alphabetic | 1 | Yes | L = live environment T = test environment |
| schemes\uris\uri\ operation | Any | 70 | Yes | The type of the scheme operation request related to the URL API endpoint. The operation for VOP is "postVerificationOfPayeeRequests " |
| schemes\uris\uri\ apiUri | Any | 2048 | Yes | The URL specifying the API endpoint that exposes the functionality needed to carry out the Scheme Operation. There can be multiple URIs per participantBic, each of which being on a distinct line of the file in the CSV format. |
| schemes\uris\uri\ apiVersion | Numeric | 2 | Yes | API version number. |
| schemes\uris\uri\ priorityNumber | Numeric | 2 | Yes | Where more than one set of API details have been provided for a single Scheme Operation, the priority number indicates the priority order in which the multiple sets of details should be considered for use. e.g. Number 1 indicates the PRIMARY URL to be used, number 2 indicates a BACKUP URL to be used. |
| schemes\uris\uri\ accountHoldingBics\ accountHoldingBic | Alphanumeric | 11 | Yes | The BIC11 of the institution holding the beneficiary's account. |
| schemes\uris\uri\ startDateTime | Date/time | 19 | Yes | Attribute to be used to indicate the validity periods of different versions of a given URL-level detail. The validity of the different versions of the URL is between the start date of the future URL and the end date of the current URL. ISO 8601 UTC date and time format YYYY-MM-DDThh:mm:ssZ |
| schemes\uris\uri\ endDateTime | Date/time | 19 | No | Attribute to be used to indicate the validity periods of different versions of a given URL-level detail. This field is optional for the future version of the URL and mandatory for the current version (when a future version is presented). The validity of the different versions of the URL is between the start date of the future URL and the end date of the current URL. ISO 8601 UTC date and time format YYYY-MM-DDThh:mm:ssZ |
| schemes\uris\uri\ note | Any | 1000 | No | Additional description or usage information. |



| | | | | |
|---|--------------|----|-----|--|
| schemes\scheme\ roles\role\code | Alphanumeric | 6 | No | <p>The roles of the institution in the scheme as extracted from the EPC registry according to the Scheme rulebook. The roles will depend on the scheme.</p> <p>Role codes are mandatory when applicable to the related scheme.</p> <p>See Appendix B (9.1) for the list of codes and their description. Both code and description are visible in the EDS GUI</p> |
| schemes\scheme\ options\option\code | Alphanumeric | 6 | No | <p>The scheme option code (if any) made available in order to interoperate as extracted from the EPC registry.</p> <p>The option code is mandatory when available.</p> <p>See Appendix B (9.2) for the list of option codes and their description. Both code and description are visible in the EDS GUI</p> |
| schemes\scheme\ options\option\readin essDate | Date | 10 | No | <p>The date of the activation of the scheme options.</p> <p>Date format: YYYY-MM-DD</p> <p>Readiness date is mandatory when an option is available.</p> |
| schemes\scheme\ options\option\leavin gDate | Date | 10 | No | <p>The date of the removal of the scheme options.</p> <p>Date format: YYYY-MM-DD</p> |
| schemes\scheme\ readinessDate | Date | 10 | Yes | <p>The date on which the participant's adherence to the scheme began or will begin.</p> <p>Date format: YYYY-MM-DD</p> |
| schemes\scheme\ leavingDate | Date | 10 | No | <p>The date on which it is intended the Scheme Participant will terminate their adherence to the scheme and will cease to be a participant in that scheme.</p> <p>Date format: YYYY-MM-DD</p> |



8 Appendix A: Abbreviations

| Abbreviation | Definition |
|--------------|---|
| API | Application Programming Interface |
| BIC | Business Identifier Code |
| EDS | EPC Directory Service |
| EPC | European Payments Council |
| LEI | Legal Entity Identifier |
| NAN | National Authorisation Number |
| PSD2 | Payment Services Directive 2 |
| PSP | Payment Service Provider |
| QWAC | Qualified Website Authentication Certificate |
| RoP | Register of Participants |
| RVM | Routing and Verification Mechanism, an entity acting as a "Proxy holder" for participants in the VOP scheme |
| SCT | SEPA Credit Transfer |
| SCT Inst | SEPA Instant Credit Transfer |
| SPAA | SEPA Payment Account Access |
| SRTP | SEPA Request-to-Pay |
| TLS | Transport Layer Security |
| URI | Uniform Resource Identifier |
| URL | Uniform Resource Locator |
| VOP | Verification Of Payee |



9 Appendix B: Codes for representing the roles and options

9.1 Roles in the VOP scheme

| | Role | Description |
|---|--------|----------------|
| 1 | REQUES | Requesting PSP |
| 2 | RESPON | Responding PSP |

9.2 Options in the VOP scheme

| | Option Code | Description |
|----|-------------|---|
| 1 | INACNO | Support for additional information about payment account number |
| 2 | VERLEI | Support for LEI to identify the Payment Counterparty |
| 3 | VERBIC | Support for anyBic to identify the Payment Counterparty |
| 4 | VCBANK | Support for BANK identification code of the Payment Counterparty |
| 5 | VCCBID | Support for CBID identification code of the Payment Counterparty |
| 6 | VCCHID | Support for CHID identification code of the Payment Counterparty |
| 7 | VCCINC | Support for CINC identification code of the Payment Counterparty |
| 8 | VCCOID | Support for COID identification code of the Payment Counterparty |
| 9 | VCCUST | Support for CUST identification code of the Payment Counterparty |
| 10 | VCDUNS | Support for DUNS identification code of the Payment Counterparty |
| 11 | VCEMPL | Support for EMPL identification code of the Payment Counterparty |
| 12 | VCGS1G | Support for GS1G identification code of the Payment Counterparty |
| 13 | VCSREN | Support for SREN identification code of the Payment Counterparty |
| 14 | VCSRET | Support for SRET identification code of the Payment Counterparty |
| 15 | VCTXID | Support for TXID identification code of the Payment Counterparty |
| 16 | VCPROP | Support for a Proprietary Code to identify the Payment Counterparty |



10 Appendix C: URI, NAN and QWAC

URI

A URI (Uniform Resource Identifier) is a string of characters used to identify a resource on the internet; think of it as an address that helps you locate and access various web resources.

We use following URI:

- **URL (Uniform Resource Locator)**: this is the most common type of URI and it provides the specific location of a resource along with the protocol needed to access it. For example, "https://www.microsoft.com" is a URL.

NAN

The **PSD2 NAN** is a unique identifier assigned to Payment Service Providers (PSPs) by their National Competent Authority (NCA).

This number is included in the Qualified Website Authentication Certificate (QWAC) under the Payment Services Directive 2 (PSD2).

The purpose of the NAN in the QWAC is to:

1. **Authenticate the PSP**: It verifies the identity of the PSP, ensuring that they are authorised and regulated by their NCA.
2. **Enhance Security**: It helps in establishing a secure and trusted communication channel between the PSP and other entities, such as banks and customers.
3. **Compliance**: It ensures that the PSP complies with PSD2 regulations, which aim to increase the security of electronic payments and reduce fraud

QWAC

The Payment Services Directive / PSD2 is a regulatory framework that ensures secure payments across the European Union.

PSD2-compliant **Qualified Website Authentication Certificates (QWACs)** are SSL/TLS certificates that encrypt sensitive data and authenticate banking entities and third-party payment service providers (PSPs) for trusted commerce transactions on websites.

Authorisation

Authorisation is the process by which an API server (= Responding PSP for VOP) will decide to allow or deny an incoming request.

To authorise a VOP request, the Responding PSP must verify in the EDS:

- If the Requesting PSP is adhering to the VOP EPC scheme.
- **Once the Requesting PSP is authenticated, the Responding PSP can extract the NAN.**

The Responding PSP will verify if the combination of the BIC (as received in the payload of the VOP request) and the NAN is present in the EDS.