21/10/2019

Bank and Payment Account Monitoring System

Query interface description of the data retrieval system

Document version 1.0

Version history

| Version | Date | Description |
|---------|------------|--|
| 1.0 | 21/10/2019 | Query interface description of the data retrieval system |
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1. Introduction

1.1 Terms and abbreviations

| Abbreviation or term | Definition |
|----------------------|--|
| Interface | A standard practice or connection point that allows the transfer of information between devices, programmes and the user. |
| WS (Web Service) | Software operating in a network server, providing services for use by applications through standardised internet connection practices. The data retrieval system provides information queries as a service. |
| Endpoint | An interface service available at a certain network address. |
| WSDL | (Web Service Description Language) A structural description language describing the functionalities provided by the web service. |
| PKI | Public key infrastructure. An electronic signature based on PKI is created so that a hash is created of the information to be signed (using a hash algorithm), and the hash is encrypted using the private key of the key pair. The encrypted hash is stored together with the signed information or electronic document, or conveyed to the recipient of information in some other way. The recipient encrypts the hash using the public key of the key pair, forms again a hash of the information in the message or document and compares it with the hash appended to the signature. The contents of the message are unchanged if the two hashes match. (Guidelines on the Information Security of e-Services) |

1.2 Purpose and scope of the document

This document is part of the order issued by Finnish Customs regarding a bank and payment account monitoring system. The purpose of the document is to issue instructions regarding the query interface of the data retrieval system. This document is supplemented by the deployment and maintenance instructions for the data retrieval system.

1.3 References

ISO 20022 External Code Sets

ISO 20022 auth.001.001.01 InformationRequestOpeningV01 MDR

ISO 20022 auth.002.001.01 InformationRequestResponseV01 MDR

ISO 20022 head.001.001.01 schema

fin.002.001.01

fin.012.001.01

fin.013.001.01

Guidelines on the Information Security of e-Services

1.4 General description

Customs has established an Account Register Project implementing the bank and payment account monitoring system, based on Finnish legislation and implementing EU Directive 2018/843.

This document describes the query interfaces of the data retrieval system.

2. Query for bank and payment account details from the data retrieval system

This chapter describes the query of bank and payment account details from the data retrieval system.

Figure 2.1 shows the query for bank and payment account details from the data retrieval system as a flow diagram.

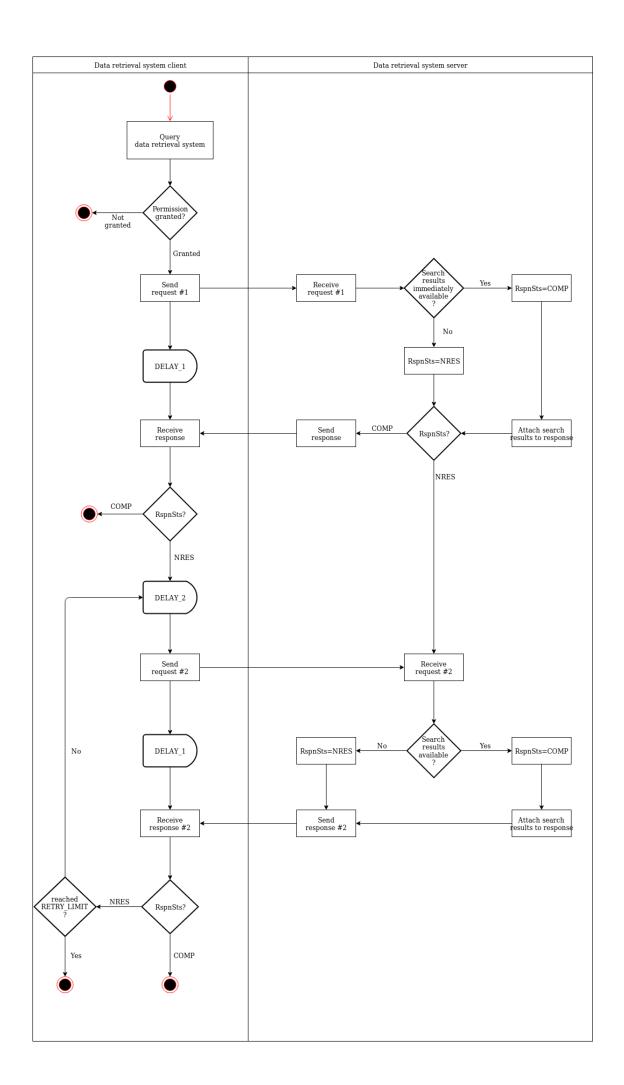


Figure 2.1. Query for bank and payment account details

The figure shows that the query interface allows both the response to be sent instantly in a synchronous manner, or alternatively in an asynchronous manner.

Table 2.1. Shows the meaning of different variables in the flow diagram.

Table 2.1. Variables in the flow diagram

| Variable | Description |
|-------------|--|
| DELAY_1 | The maximum permissible delay of query request #1, "immediately" |
| DELAY_2 | Polling interface, the time the client has to wait before the next query |
| RETRY_LIMIT | The number of polls (request #2) permitted |

The values of variables shown in Table 2.1. Valid at the time are shown in the annex documents.

The flow of the query is as follows:

- 1. The client sends a query message
- 2. The server either
 - a. returns a response message including the retrieval result and the code *COMP* within the delay defined in variable *DELAY_1* ("immediately"), or
 - b. returns a response message including the code NRES
- 3. The client checks whether the response message has the code COMP or NRES
- 4. If the code is *COMP*, the process moves to step 10.
- 5. The code is *NRES*. The client waits for the time defined by variable *DELAY_2* and then makes query request #2
- 6. The server either
 - a. returns the retrieval result and the code *COMP* within the delay defined in variable *DELAY_1* ("immediately"), or
 - b. returns a response message including the code *NRES*
- 7. The client checks whether the response message has the code COMP or NRES
- 8. If the code is *COMP*, the process moves to step 10.
- 9. The code is NRES. If the RETRY_LIMIT has not been reached, the process moves to step 5.
- 10. End.

The table describes the use of StatusResponse1Code values.

Table 2.2. Use of StatusResponse1Code values

| Code | Name | Definition | Description |
|------|------------------|-----------------------|---|
| СОМР | CompleteResponse | Response is complete. | The response message includes the retrieval results |

| Code | Name | Definition | Description |
|------|-----------------|---------------------------------|--|
| NRES | NoResponseYet | · - | The response message does not include retrieval results; make a new query later. |
| PART | PartialResponse | Response is partially provided. | Not used. |

3. Information security

3.1 Identification

Table 3.1. Shows the certificates used in the data retrieval system.

Table 3.1. Certificates of the data retrieval system

| Standard | Name of the certificate | Purpose |
|----------------------|-------------------------|---|
| | | Interface Data traffic certificate of the data utiliser or the party authorised by the data utiliser |
| X.509 (version 3) | | Signing the messages, verification of the authenticity of messages, identification of the data supplier |

The utilisers of the data retrieval system interface and the data suppliers or the parties authorised by the data supplier are identified with X.509 certificates (Data traffic certificate). The query and response messages of the query interface are signed using XML signatures (Signature certificate).

Signature certificate of outgoing messages

The outgoing messages must be automatically signed using an x.509 server certificate showing the Business ID or VAT code of the data supplier concerned. Acceptance of the signature requires that

either

a) the certificate was issued by the Population Register Centre, the certificate is valid and is not included in the certificate revocation list of the Population Register Centre, and the serialNumber attribute of the Subject field of the certificate consists of the Business ID or VAT identifier of the party submitting the information

or

b) the certificate is an eIDAS-approved website identification certificate, the certificate is valid and is not included in the certificate revocation list of party providing the certificate, and the organizationIdentifier attribute of the Subject field of the certificate consists of the Business ID or VAT identifier of the party submitting the information.

Signature certificate of incoming messages

The signatures of incoming messages must be checked. The signature of a competent authority is acceptable provided that

- a) the signature certificate used for the signature was issued by the Population Register Centre, the certificate is valid and is not included in the certificate revocation list maintained by the Population Register Centre
- b) the serialNumber attribute of the subject of the certificate consists of letters "FI" and the numerical part of the Business ID of the competent authority sending the message without the dash (an identifier with the format of a VAT identifier).

Data traffic certificate of the party making the contact

the Business ID or VAT code of the data supplier concerned or the party authorised by the data supplier.

The party making the contact is identified with a server certificate. The data system must accept the signature of a competent authority provided that

- a) the certificate of the competent authority was issued by the Population Register Centre
- b) the certificate is valid and is not included in the certificate revocation list of the Population Register Centre
- c) the serialNumber attribute of the subject of the certificate consists of letters "FI" and the numerical part of the Business ID of the competent authority or the State service centre acting on its behalf without the dash (an identifier with the format of a VAT identifier).

Data traffic certificate of the data supplier or the party authorised by the data supplier

The data supplier or the party authorised by the data supplier is identified with a server certificate. The party authorised by the data supplier refers, for example, to a service centre which the data supplier has authorised to compile and/or send the reports on its behalf.

The data system must accept the connection to the data supplier provided that

either

a) the server certificate was issued by the Population Register Centre, the certificate is valid and is not included in the certificate revocation list of the Population Register Centre, and the serialNumber attribute of the subject of the certificate consists of the Business ID or VAT identifier of the party submitting the information or the party authorised by that party

or

b) the server certificate is an eIDAS-approved website identification certificate, the certificate is valid and is not included in the certificate revocation list of party providing the certificate, and the organizationIdentifier attribute of the subject of the certificate consists of the Business ID or VAT identifier of the party submitting the information or the party authorised by that party.

If the same Business ID or VAT identifier is used in the data traffic certificate and outgoing message signature certificate of the party submitting the information, the same certificate can be used for both purposes.

Forming XML signatures

The signature is of the **enveloped signature** type. The signature element is placed in BAH under the Sgntr element.

Example 3.1. Example SignedInfo

```
<SignedInfo>
<CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"/>
<SignatureMethod
Algorithm="http://www.w3.org/2000/09/xmldsig#rsa-sha256"/>
<Reference URI="">
<Transforms>
<Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"/>
</Transforms>
<DigestMethod Algorithm="http://www.w3.org/2000/09/xmldsig#sha256"/>
<DigestValue>...</DigestValue>
</Reference>
</SignedInfo>
```

The signature algorithm therefore is RSA-SHA256 and C14N is Exclusive XML Canonicalization. The reference URI is "", meaning that the entire document is signed. When forming the signature, the SHA256 algorithm must be used for establishing the digests to be calculated.

The possibility of limiting the IP space of requests in the data retrieval system will be further specified at a later stage.

3.2 Protecting the connections

The connections of the query interface of the data retrieval system must be protected with TLS encryption using version 1.2 or later of the TLS protocol. Both ends of the connection are identified with the server certificates described above, using two-way handshaking. The connection must be established using the ephemeral Diffie-Hellman (DHE) key exchange protocol where a new unique private encryption key is created for each session. The purpose of this procedure is to ensure that encryption has the forward secrecy feature so that possible discovery of the encryption key afterwards would not lead to a disclosure of the encrypted information.

The cryptographic algorithms used in TLS encryption must have a cryptographic strength at least equal to the cryptographic strengths the Finnish Transport and Communications

Agency has specified for national protection level ST IV. The current strength requirements are described in document

https://www.kyberturvallisuuskeskus.fi/sites/default/files/media/regulation/ohje-kryptografiset-vahvuusvaatimukset-kansalliset-suojaustasot.pdf (Record no: 190/651/2015).

3.3 Permitted HTTP version

The connections of the query interface of the data retrieval system use HTTP version 1.1.

3.4 Duty to report information security deviations

If the certificates or private key of the party implementing the data retrieval system are compromised, the party issuing the certificate and the competent authorities utilising the data retrieval system must be immediately informed of this. The competent authorities must also be informed if an information security deviation is observed in the data retrieval system.

If the certificates or private key of the competent authority utilising the data retrieval system are compromised, the party issuing the certificate and the parties implementing the data retrieval system whose implementation of the data retrieval system is utilised by the competent authority concerned must be immediately informed of this.

4. Query interface of the data retrieval system

The query interface will be implemented as a SOAP/XML Web Service, of which a WSDL will be published.

SOAP protocol version 1.1 is used.

ISO 20022 code set references are used in the messages. The code set references are found at the ISO 20022 page entitled ISO 20022 External Code Sets.

The query interface has one endpoint with its query and response message structure described in this chapter.

4.1 Message structure of the SOAP operations of the guery interface

The SOAP body always consists of two parts, the ISO 20022 Business Application Header (BAH) and the actual business message.

4.2 Business Application Header (BAH)

The details of the Business Application Header message are shown in the table below.

| Message id | Name of the message | Instructions for application |
|-----------------|--------------------------------|------------------------------|
| head.001.001.01 | Business Application Header | MUG |

The BAH must always be the first element of the SOAP body.

4.3 Messages of the query interface

The data retrieval system query interface uses the <u>ISO 20022 messages</u> <u>InformationRequestOpeningV01 and InformationRequestResponseV01</u>, to which the required <u>Supplementary Data</u> are appended

The ISO 20022 messages used are listed in the table below.

| Message id | Message id Name of the message | | Corresponding organisation | Msg Def Report |
|-----------------|--------------------------------|---|----------------------------|-------------------|
| auth.001.001.01 | InformationRequestOpeningV01 | Query message of the query interface | | MDR |
| auth.002.001.01 | InformationRequestResponseV01 | Response message of the query interface | FFI | MDR |

The Supplementary Data message extension appended to the query message is listed in the table below. More detailed contents of message extensions and the instructions for use of the records are listed in Chapter 4.

| Message id | Name of the message | ID of the extended ISO 20022 message | Purpose and functionality |
|---------------|--------------------------|--------------------------------------|---|
| FIN012 | InformationRequestFIN012 | auth.001.001.01 | ISO 20022 message extension The competent authorities of the query interface use this message for querying information from the data retrieval interface. Includes the identifiers of the person making the enquiry and this person's manager. Allows the use of auth.001.001.01 missing search criteria (for example safety-deposit box; currently not used) |

The Supplementary Data message extensions appended to the response message are listed in the table below.

| Message id | Name of the message | ID of the extended ISO 20022 message | Purpose and functionality |
|-----------------|---------------------------|--|--|
| supl.027.001.01 | InformationResponseSD1V01 | auth.002.001.01 | Includes the account details corresponding to the search parameters and the beneficiaries associated with the accounts |
| FIN002 | InformationResponseFIN002 | auth.002.001.01 | Includes the details of safe- deposit boxes and holders of safe-deposit boxes corresponding to the search parameters |
| FIN013 | InformationResponseFIN013 | auth.002.001.01 | Includes separately the customer details of account and safe-deposit boxes that correspond to the search parameters |

The message replies of the query interface will include all such information that corresponds to the search criteria and whose temporal scope is derived from chapter 3, section 3 of the Act on the Prevention of Money Laundering and Terrorism Financing that lays down precise and well-defined provisions on the customer due diligence information and its storage. All involvement details delated to accounts and safe-deposit boxes are returned, i.e. all persons involved are also returned in addition to the persons (legal or natural) complying with the search parameters. However, other account and safe-deposit box details of the involved persons than those complying with the search parameters are not returned. Instead, new queries have to be made for them with the appropriate legal basis.

The query interface messages with their records are listed below. The tables should be read so that the indented rows are included in the first row in the message structure.

Mandatory details are shown in the table as follows:

- R Required
- A Alternative; one of several alternatives is chosen
- **O** Optional

4.4 BusinessApplicationHeaderV01

The use of BAH elements is shown in the table below. The element types are described in the head.001.001.01 schema.

| Name | Туре | In use | Description |
|-------------------------------|--------------------------------|-----------|---|
| BusinessApplicationHeade rV01 | | | |
| CharSet | UnicodeChartsCode | yes | "UTF-8" |
| Fr | Party9Choice | yes | Used as follows: Element Fr/Orgld/Id/Orgld/Othr/SchmeNm/Cd includes the value "Y" and element Fr/Orgld/Id/Orgld/Othr/Id includes the sender's Business ID. |
| То | Party9Choice | yes | Used as follows: Element To/Orgld/Id/Orgld/Othr/SchmeNm/Cd includes the value "Y" and element To/Orgld/Id/Orgld/Othr/Id includes the sender's Business ID (For example in the data retrieval system, the Business ID 0245442-8) |
| BizMsgldr | Max35Text | yes | Use in accordance with the standard. |
| MsgDefldr | Max35Text | | Includes the message id. The query messages use "auth.001.001.01", the response messages include "auth.002.001.01" |
| BizSvc | | no | |
| CreDt | ISONormalisedDateTime | 1 | The date and time of creating the BAH. Must be normalised using Z notation (UTC). |
| CpyDplct | | no | |
| PssblDplct | | no | |
| Prty | | no | |
| Sgntr | | yes | The XML signature formed by the business message sender. See Creating XML signatures |
| Rltd | BusinessApplicationHea der1 | yes | Used in a response message, includes the BAH included in the query message. |

4.5 InformationRequestOpeningV01

The table describes the use of records in the message.

| Name | Туре | In use | Description |
|----------------------------------|--------------------------------|-----------|--|
| InformationRequestOpeni ngV01 | | | |
| Invstgtnld | Max35Text | Yes | Case id of the investigation |
| LglMndtBsis | LegalMandate1 | Yes | Legal basis. The set of values will be further specified. |
| CnfdtltySts | YesNoIndicator | Yes | Always "true" |
| DueDt | DueDate1 | No | |
| InvstgtnPrd | DateOrDateTimePeri odChoice | No | Not taken into account. Mandatory in the schema, so /Document/InfReqOpng/InvstgtnPrd/Dt/FrDt and ToDt e.g. the current date |
| SchCrit | SearchCriteria1Choic e | Yes | Search criterion. The search criterion used must always be as specific as possible. For example, if the OtherOrganisationIdentification field is used instead of Business ID, the search will not concern Business IDs at all. See further specifications below. |
| SplmtryData | SupplementaryData1 | Yes | Includes message extension InformationRequestFIN012 |

Search by personal identity code or ID card identification number

| Tag | Scheme path InfReqOpng/SchCrit/ | Description |
|---------------------|-------------------------------------|--|
| <ld></ld> | Cstmrld/Pty/ld/Prvtld/Othr | Personal identity code or ID card identification number |
| <cd></cd> | Cstmrld/Pty/ld/Prvtld/Othr/SchemeNm | "PIC" (Personal Identity Code), "OTHR" (Other ID card identification number) |
| <msgnmid></msgnmid> | CstmrId/AuthrtyReq/Tp | "auth.001.001.01" |
| <cd></cd> | Cstmrld/AuthrtyReq/InvstgtdRoles | "ALLP" |

Search by Business ID or other identifier of a legal person

| Tag | Scheme path InfReqOpng/SchCrit/ | Description |
|---------------------|------------------------------------|--|
| <ld></ld> | Cstmrld/Pty/Id/OrgId/Othr | Business ID or other identifier of a legal person |
| <cd></cd> | Cstmrld/Pty/Id/OrgId/Othr/SchemeNm | "Y" (Business ID), "PRH" (Association register number), OTHER* |
| <msgnmid></msgnmid> | Cstmrld/AuthrtyReq/Tp | "auth.001.001.01" |
| <cd></cd> | Cstmrld/AuthrtyReq/InvstgtdRoles | "ALLP" |

Search by company name

| Tag | Scheme path InfReqOpng/SchCrit/ | Description |
|---------------------|------------------------------------|-------------------------|
| <ld></ld> | CstmrId/Pty/Nm | Company name |
| <ld></ld> | Cstmrld/Pty/Id/OrgId/Othr | The value is set as "1" |
| <cd></cd> | Cstmrld/Pty/ld/Orgld/Othr/SchemeNm | "NAME" |
| <msgnmid></msgnmid> | CstmrId/AuthrtyReq/Tp | "auth.001.001.01" |
| <cd></cd> | CstmrId/AuthrtyReq/InvstgtdRoles | "ALLP" |

Search by IBAN

| ocaron by IDAN | | | | | | | |
|------------------|---------------|---------------------------------|-------------|--|--|--|--|
| Search criterion | Tag | Scheme path InfReqOpng/SchCrit/ | Description | | | | |
| IBAN | <iban></iban> | Acct/Id/Id | | | | | |

Search by other identification code

| Search criterion | Tag | Scheme path InfReqOpng/SchCrit/ | Description |
|------------------------------------|-----------|---------------------------------|-------------|
| Other code identifying the account | <ld></ld> | Acct/Id/Id/Othr | Identifier |
| | <cd></cd> | Acct/Id/Id/Othr/SchemeNm | OTHER* |

Search by a combination of the natural person's name, nationality and date of birth

| Tag | Scheme path InfReqOpng/SchCrit/ | Description |
|-----------|-------------------------------------|--------------|
| <nm></nm> | Cstmrld/Pty | Name |
| <ld></ld> | Cstmrld/Pty/Id/Prvtld/Othr | Country code |
| <cd></cd> | Cstmrld/Pty/Id/Prvtld/Othr/SchemeNm | "NATI" |

| Tag | Scheme path InfReqOpng/SchCrit/ | Description |
|---------------------|---------------------------------------|---|
| <birthdt></birthdt> | Cstmrld/Pty/ld/Prvtld/DtAndPlcOfBirth | Date of birth. "XX" is set as the value of CtryOfBirth, and "not in use" is set as the value of CityOfBirth |
| <msgnmid></msgnmid> | Cstmrld/AuthrtyReq/Tp | "auth.001.001.01" |
| <cd></cd> | Cstmrld/AuthrtyReq/InvstgtdRoles | "ALLP" |

^{*)} the OTHER set of values is described in a separate table; Customs will send the tables regarding the bank and payment account register to the party maintaining the common table.

4.6 Message extension InformationRequestFIN012

The message extension is appended to the Xpath location of the ISO 20022 message listed in the table.

| Name | Mandato ry? (RAO) | [min max] | Туре | Description | Appended to message | XPath |
|------------------------------|-------------------------|--------------|------------------------------|--|------------------------|--|
| InformationReques tFIN012 | | | | | alith lilli | /Document/InfReqOpn g/SpImtryData/Envlp |
| AuthorityInquiry | R | [11] | Authority InquiryS et | Authority details associated with the query | | |
| AdditionalSearc hCriteria | R | [1*] | SearchC riteriaCh oice | This element can be used when a safety-deposit box is to be used as a search criterion, for example. | | |

AuthorityInquirySet

| INAME | Mandatory? (RAO) | [minmax] | Туре | Description |
|---------------------|---------------------|----------|------|-------------|
| AuthorityInquirySet | | | | |

| INAME | Mandatory? (RAO) | [minmax] | Туре | Description |
|--------------------|---------------------|----------|------------|--------------------------------------|
| OfficialId | R | [01] | Max140Text | Identifier of the authority (person) |
| OfficialSuperiorId | R | [01] | Max140Text | Identifier of the manager |

4.7 InformationRequestResponseV01

The table describes the use of records in the message.

| Name | Туре | In use | [min max] | Description |
|-----------------------------------|---------------------------|--------|--------------|---|
| InformationRequestResponse V01 | | | | |
| Rspnld | Max35Text | Yes | [11] | id of the response message |
| Invstgtnld | Max35Text | Yes | [11] | Case id sent in the query message |
| RspnSts | StatusResponse1C ode | Yes | [11] | Status of the response message, "COMP" |
| SchCrit | SearchCriteria1Ch oice | Yes | [11] | The query message included the Document/InfReqOpng/Sch Crit as such |
| RtrInd | ReturnIndicator1 | Yes | [0*] | See below for the use of ReturnIndicator1. |
| SplmtryData | SupplementaryDat a1 | No | [00] | - |

Use of ReturnIndicator1

ReturnIndicator1 includes the presence of a single type of search result.

| XPath | Туре | Description |
|-----------------------------|----------------------------|--|
| RtrInd/AuthrtyReqTp/MsgNmId | Max35Text | Includes the message ID of a message extension (supl.027.001.01, fin.013.001.01 or fin.002.001.01) |
| RtrInd/InvstgtnRslt | InvestigationResult1Choice | Rslt element of type SupplementaryDataEnvelope1 is always returned, including either |

| XPath | Туре | Description |
|-------|------|--|
| | | supl.027.001.01, InformationResponseFIN002 or InformationResponseFIN013. |

At most one search result sub-message (supl.027.001.01, fin.013.001.01 or fin.002.001.01) is returned per Business ID for each search result type.

Example 1.

Three results corresponding to the Document/InfReqOpng/SchCrit search criterion present in the query message have been found: one customer and two accounts.

Two RtrInd elements are appended to the response message:

```
<!-- xmlns:n1="urn:iso:std:iso:20022:tech:xsd:auth.002.001.01" -->
<n1:RtrInd>
 <n1:AuthrtyReqTp>
  <n1:MsgNmld>supl.027.001.01</n1:MsgNmld>
 </n1:AuthrtyReqTp>
 <n1:InvstgtnRslt>
  <n1:Rslt>
   <n2:Document xmlns:n2="urn:iso:std:iso:20022:tech:xsd:supl.027.001.01" ...>
     <n2:InfRspnSD1>
      <!-- Hakutuloksen tili #1, tili #2 tiedot -->
    </n2:InfRspnSD1>
   </n2:Document>
  </n1:Rslt>
 </n1:InvstgtnRslt>
</n1:RtrInd>
<n1:RtrInd>
 <n1:AuthrtyReqTp>
  <n1:MsgNmld>fin.013.001.01</n1:MsgNmld>
 </n1:AuthrtyRegTp>
 <n1:InvstgtnRslt>
  <n1:Rslt>
   <n1:Document xmlns:n3="fin.013.001.01" ...">
          <n1:InfRspnFin013>
      <!-- Hakutuloksen asiakkuus #1 tiedot -->
    </n1:InfRspnFin013>
   </n1:Document>
  </n1:Rslt>
 </n1:InvstgtnRslt>
</n1:RtrInd>
```

Example 2.

The interface is a compilation: one interface returns search results under several different Business IDs.

Four results corresponding to the Document/InfReqOpng/SchCrit search criterion present in the query message have been found: one account (account #1) for Business ID

0190983-0 and three accounts (account #2, account #3, account #4) for Business ID 0828972-6.

Two RtrInd elements are appended to the response message.

```
<!-- xmlns:n1="urn:iso:std:iso:20022:tech:xsd:auth.002.001.01" -->
<n1:RtrInd>
 <n1:AuthrtyReqTp>
  <n1:MsgNmld>supl.027.001.01</n1:MsgNmld>
 </n1:AuthrtyReqTp>
 <n1:InvstgtnRslt>
  <n1:Rslt>
   <n2:Document xmlns:n2="urn:iso:std:iso:20022:tech:xsd:supl.027.001.01" ...>
    <n2:InfRspnSD1>
      <n2:Invstgtnld>a</n2:Invstgtnld>
       <n2:CreDtTm>
        <!-- -->
       </n2:CreDtTm>
       <n2:AcctSvcrld>
        <n2:FinInstnId>
         <n2:Othr>
          <n2:Id>0190983-0</n2:Id>
          <n2:SchmeNm>
            <n2:Cd>Y</n2:Cd>
          </n2:SchmeNm>
         </n2:Othr>
        </n2:FinInstnId>
       </n2:AcctSvcrld>
       <n2:AcctAndPties>
        <!-- Y-tunnuksen 0190983-0 hakutulokset, tili #1-->
       </n2:AcctAndPties>
    </n2:InfRspnSD1>
   </n2:Document>
  </n1:Rslt>
 </n1:InvstgtnRslt>
</n1:RtrInd>
<n1:RtrInd>
 <n1:AuthrtyReqTp>
  <n1:MsgNmld>supl.027.001.01</n1:MsgNmld>
 </n1:AuthrtyReqTp>
 <n1:InvstgtnRslt>
  <n1:Rslt>
   <n2:Document xmlns:n2="urn:iso:std:iso:20022:tech:xsd:supl.027.001.01" ...>
    <n2:InfRspnSD1>
      <n2:Invstgtnld>a</n2:Invstgtnld>
      <n2:CreDtTm>
       <!-- -->
      </n2:CreDtTm>
      <n2:AcctSvcrId>
       <n2:FinInstnId>
        <n2:Othr>
         <n2:Id>0828972-6</n2:Id>
         <n2:SchmeNm>
          <n2:Cd>Y</n2:Cd>
         </n2:SchmeNm>
        </n2:Othr>
       </n2:FinInstnId>
      </n2:AcctSvcrld>
      <n2:AcctAndPties>
       <!-- Y-tunnuksen 0828972-6 hakutulokset, tili #2, tili #3, tili #4 -->
```

</n2:AcctAndPties>
</n2:InfRspnSD1>
</n2:Document>
</n1:Rslt>
</n1:InvstgtnRslt>
</n1:RtrInd>

4.8 InformationResponseSD1V01 supl.027.001.01

The table describes the use of records in the message.

| Name | Туре | | [min max] | Description |
|--|--|-----|--------------|---|
| InformationRespon seSD1V01 supl.027.001.01 | | | | |
| Invstgtnld | Max35Text | yes | [11] | Case id of the investigation |
| CreDtTm | ISODateTime | yes | [11] | Time of creating the message |
| AcctSvcrld | BranchAndFinancialInstituti onIdentification4 | yes | [11] | Used as follows: Element AcctSvcrld/FinInstnld/Othr/SchmeN m/Cd includes the value "Y" and element AcctSvcrld/FinInstnld/Othr/Id includes the sender's Business ID. |
| AcctAndPties | AccountAndParties2 | yes | [1*] | See the table below |

Use of AccountAndParties2

| Name | Туре | In use | [minmax] | Description |
|--------------------|------------------|-----------|----------|--|
| AccountAndParties2 | | | | |
| Acct | CustomerAccount1 | yes | 111 "1 | For account details, see the use of CustomerAccount1 |
| Role | AccountRole1 | yes | 111 ^1 | For roles associated with the account, see the second table below |
| AddtlInf | Max256Text | yes | [11] | The date of opening the account, as a string of characters in ISODate format |

Use of CustomerAccount1

| Name | Туре | In use | [minmax] | Description |
|------------------|------------------------------|-----------|----------|--|
| CustomerAccount1 | | | | |
| ld | AccountIdentification4Choice | yes | | Either IBAN or other information identifying the account, see the supl.027.001.01 scheme |
| Nm | | no | | |
| Sts | | no | | |
| Тр | | no | | |
| Ссу | | no | | |
| MnthlyPmtVal | | no | | |
| MnthlyRcvdVal | | no | | |
| MnthlyTxNb | | no | | |
| AvrgBal | | no | | |
| AcctPurp | | no | | |
| FIrNtfctnAmt | | no | | |
| ClngNtfctnAmt | | no | | |
| StmtCycl | | no | | |
| ClsgDt | ISODate | yes | [01] | Date of closing the account |
| Rstrctn | | no | | |

Use of AccountRole1

| Name | Type | In use | [minmax] | Description |
|--------------|-----------------------|-----------|----------|--|
| AccountRole1 | | | | |
| Pty | Partyldentification41 | yes | [1*] | See <u>use of Id element</u> |
| OwnrTp | OwnerType1 | yes | I I | Use OwnrTp/Prtry/SchmeNm/Cd with the value "RLTP" and OwnrTp/Prtry/Id with the |

| Name | Туре | In use | [minmax] | Description |
|---------|---------|-----------|----------|--|
| | | | | values "POWN" (owner), "ACCE" (access right) or "BENE" (beneficiary) |
| StartDt | ISODate | yes | [11] | Start date of the role |
| EndDt | ISODate | yes | [01] | End date of the role |

4.9 InformationResponseFIN002

The message extension is appended to the Xpath location of the ISO 20022 message listed in the table.

| Name | Man dator y? (RA O) | [min max] | Туре | Use | Description | Appended to message | XPath |
|-----------------------------------|---------------------------------|--------------|--|-----|---|---------------------------|---|
| Information ResponseFI N002 | | | | | | auth.002 | /Document/Inf ReqRspn/RtrIn d/InvstgtnRsIt/ RsIt |
| Invstgtnld | R | [11] | Max35Text | yes | Case id of the investigation | | |
| CreDtTm | R | [11] | ISODateTime | yes | Time of creating the message | | |
| Svcrld | R | [11] | BranchAndFin ancialInstitutio nIdentification 4 | yes | Used as follows: Element Svcrld/FinInstnId/O thr/SchmeNm/Cd includes the value "Y", and element Svcrld/FinInstnId/O thr/Id includes the sender's Business ID. | | |
| SdBoxAn dPties | 0 | [0*] | SafetyDeposit BoxAndParties | yes | Safe-deposit box and parties involved | | |

4.10 InformationResponseFIN013

The message extension is appended to the Xpath location of the ISO 20022 message listed in the table.

| Name | Man dator y? (RA O) | Use | [min max] | Туре | Description | mess age | XPath |
|-----------------------------------|---------------------------------|-----|--------------|-------------|---|---------------------|---|
| Information ResponseFI N013 | | | | | | <u>auth.0</u> 02 | /Document/InfReqR spn/RtrInd/InvstgtnR slt/RsIt |
| InvstgtnId | R | yes | [11] | Max35Text | Case id of the investigation | | |
| CreDtTm | R | yes | [11] | ISODateTime | Time of creating the message | | |
| Svcrld | R | yes | [11] | | Used as follows: Element Svcrld/FinInstnId/Oth r/SchmeNm/Cd includes the value "Y", and element Svcrld/FinInstnId/Oth r/ld includes the sender's Business ID. | | |
| Customer | Ο | yes | [0*] | Customer | The customer. Natural person or enterprise. For use of the Customer element, see the table below | | |

Use of the Customer element

| Name | livpe | In use | [minmax] | Description |
|----------|-----------------------|-----------|----------|------------------------------|
| Customer | | | | |
| Contract | Contract | yes | [11] | |
| ld | Partyldentification41 | yes | [11] | See <u>use of Id element</u> |

| Name | Туре | In use | [minmax] | Description |
|---------------|---------------|-----------|----------|--|
| Beneficiaries | Beneficiaries | yes | [01] | Beneficiaries, see <u>Use of Beneficiaries</u> |

Use of Beneficiaries

| Name | Туре | In use | [minmax] | Description |
|------|-----------------------|--------|----------|------------------------------|
| ld | Partyldentification41 | yes | [1*] | See <u>use of Id element</u> |

4.11 Use of Id element

All messages use the equivalent identification structure for legal persons and natural persons under the Id-element (Party8Choice). Use of the Id element at the query interface is described here.

| Name | Туре | In use | [minmax] | Description |
|------|--------------|--------|----------|-------------|
| ld | Party8Choice | yes | [11] | |

Party8Choice

| Name | Mandatory? (RAO) | Туре | [minmax] | Description |
|--------------|---------------------|-----------------------------|----------|--|
| Party8Choice | | | | |
| Orgld | A | OrganisationIdentification6 | [01] | Used as follows: Element Orgld/Othr/SchmeNm/Cd includes the type code of the organisation identifier and element Orgld/Othr/ld includes the identifier. For codes, see the table below. Furthermore, the date of registration of a legal person can be returned in connection with the query response, see the example below |
| Prvtld | A | PersonIdentification5 | [01] | Used as follows: Element PrvtId/Othr/SchmeNm/Cd includes the type code of the person identifier. Element PrvtId/Othr/Id includes the identifier. For codes, see the table below. |

Orgld codes

| Code | Description |
|------|---|
| Υ | Business ID |
| PRH | Association register number |
| 11 | Other corporate identifier, a list of the codes in in a separate document provided by Customs |

Prvtld codes

| Code | Description | |
|------|--|--|
| PIC | Finnish personal identity code | |
| OTHR | Other identification document identifier | |

An example of returning the date of registration of a legal person

The date of registration of a legal person is returned as an Othr element parallel to the identification element (for example Business ID):

The date of registration is returned in the Id element. Code RGDT is returned in the SchemeNm/Cd element, and the name of the registering authority is returned in the Issr element.

```
<Orgld>
<Othr>
<Id>1234567-8</ld>
<SchmeNm>
<Cd>Y</Cd>
</SchmeNm>
</Othr>
<Othr>
<Id>2000-01-01</ld>
<SchmeNm>
<Cd>RGDT</Cd>
</schmeNm>
<Issr>Verohallinto</Issr>
</Othr>
</Othr>
```

4.12 WS message traffic scenarios at the query interface

This chapter describes the WS message traffic scenarios at the query interface.

Scenario 1 - OK

| Description | The message was successfully processed in its entirety. |
|------------------|---|
| HTTP status code | 202 |
| Consequence | - |

Scenario 3 - Incorrect query

| Description | The query message is incorrect |
|----------------------|--------------------------------|
| HTTP status code 400 | |
| Consequence | Send a corrected message |

Scenario 4 - Technical error

| Description | A technical error has occurred |
|--|--------------------------------|
| HTTP status code | 500 |
| Consequence The message was not processed. The response message includes a description of the error. | |