

BMAP 01.01 - B2B programmer guide for FCR Nominations

Version 01
29/08/2017

Table of Contents

Chapter 1. Author and History.....	4
1.1. History.....	4
1.2. Contact person	4
Chapter 2. Introduction	5
Chapter 3. Using the B2B portal	6
3.1. BMAP B2B REST API	6
3.2. Description of the REST API.....	6
3.2.1. Server-side.....	6
3.2.2. client-side.....	6
Chapter 4. FCR process description	7
4.1. Introduction	7
4.2. Send a FCR Nomination message	7
4.2.1. The BSP initiates a FCRNominationDocument to Elia.	7
4.3. Message Validation process.	8
4.3.1. Description	8
4.3.2. Technical validation.....	8
4.3.3. Business validation	8
Chapter 5. Messages specifications	10
5.1. FcrNominationDocument XML structure.....	10
5.1.1. Data structure FcrNominationDocument body XML.....	10
5.1.2. Message parts.....	11
5.1.3. Data structure NominationDetail.....	12
5.2. FcrNominationDocumentResponse structure.	12
5.2.1. Data structure FcrNominationDocumentResponse	12
5.3. Generic message parts.....	14
5.3.1. Data structure Partner: Partner identifier.....	14
5.3.2. Data structure Error: error identifier	14
5.4. Data types	17
Chapter 6. Sample message	19
6.1. FcrNominationDocument.	19
6.2. FcrNominationDocumentResponse.....	31
6.2.1. FcrNomination Response without error	31
6.2.1. FCR Nomination Response with errors	31

Chapter 1. Author and History

1.1. History

Version	Date	Changes
BMAP 01.01 Doc V1	25-07-2017	Initial version
BMAP 01.01 Doc V2	29-08-2017	Version after internal Elia review

1.2. Contact person

For any additional technical information, you can contact the following persons:

Nom	E-mail
Vincent Dubois	vincent.dubois@elia.be

Chapter 2. Introduction

This document is a developer guide for the use of the BMAP B2B REST API for communicating between BSP (Balancing Service Provider) and Elia with the BMAP application. This document describes the how a BSP can send its FCR Nomination. This is done using the process "FCR Nomination" using XML messages exchange.

This document is organized into four sections.

- [Using the Star B2B portal](#)

The first part explains how the communication interface with the B2B portal actually works. C# code samples are supplied.

- [FCR Nomination process description](#)

The second part describes the process of the FCRNomination.

- [Messages specifications](#)

The third part is a detailed message specification.

- [Message samples](#)

The last part gives some samples of XML messages.

Chapter 3. Using the B2B portal

3.1. BMAP B2B REST API

The BMAP REST API is for the interface between Elia Web server and the client Web browser.

3.2. Description of the REST API

3.2.1. Server-side

The BMAP REST API is the programmatic interface to a defined request-response message system expressed in XML exposed via HTTPS based web server.

- HTTPS – PUT method for sending FcrNominationDocument
 - o URI= to be confirmed (<https://bmap.elia.be/b2B/FCR/bid/v1>)
Note: the URI address can be modified and so will be transmitted if applicable
 - o Method= PUT
 - o ContentType = text/xml
 - o Authentication using the ISOEXT login
 - o Body: XML as defined in section [FcrNominationDocument XML structure](#)
 - o BodyResponse: XML as defined in the [FcrNominationDocumentResponse structure.](#)

3.2.2. client-side

Not Applicable

Chapter 4. FCR process description

4.1. Introduction

This section describes how B2B process to communicate with BMAP is implemented concerning in order for the BSP to send FCR nomination to ELIA BMAP system.

4.2. Send a FCR Nomination message

4.2.1. The BSP initiates a FCRNominationDocument to Elia.

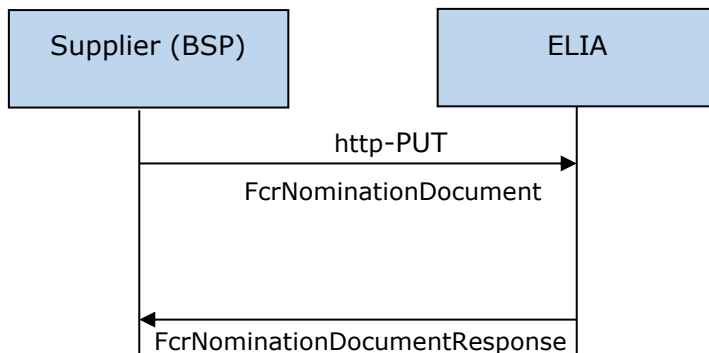
The BSP decides to generate several nominations for a specific delivery date and specific contract reference. To do that he can decide to send a B2B message to the application BMAP containing the FCR nomination details.

The BSP will use an HTTP-PUT method with an XML message (as defined in [Messages specifications](#)) containing all the necessary information to push their nominations into BMAP.

The message contains for each nomination, the contract reference, FCR Providing Group number and the service type. Then for each quarter of hour, the message specifies the volume per service type-

The TSO replies by a response giving the result of the transaction.

The following diagram illustrates the scenario description:



4.3. Message Validation process.

4.3.1. Description

The validation process is the process defined in the BMAP application to validate the structure and the content of the received message. FCRNominationDocumentResponse will contains the result of this validation process

4.3.2. Technical validation

4.3.2.1. XML structure validation

The received XML message FcrNominationDocument will be validated through its XML structure using XSD validation. If this validation fails, the message will be rejected.



FCRNomination_v1.
xsd

4.3.2.2. Authentication validation

It is validated at this level that authentication used by the caller is a valid one.

Based on the ISOEXT login used, BMAP application will identify the BSP with its EIC code.

4.3.3. Business validation

Note: For detailed Business rules, please refer to FCR contract

4.3.3.1. Delivery date Validation

Check is done to verify that BSP can supply bid at the specified Delivery Date.

4.3.3.2. BSP Contract validation

The specified Contract Reference value is checked with following validations

- The Contract Reference exists
- The Contract Reference is well associated to the BSP (linked to the ISOEXT login)
- The Contract Reference is valid for the delivery date

4.3.3.3. Gate checks

It shall only be possible to submit nominations for current delivery day and delivery days in the future for which at least one QH has an obligation > 0MW.

The neutralization time rule shall also be respected.

We will only take into account the data related to the QH after the Neutralization delay. Even if the supplier submits data for QH before the Neutralization delay these information will not be considered and a warning message has to be sent back to the supplier: "Warning, one or several submitted data don't respect the neutralization delay condition. These specific data will not be considered and stored."

4.3.3.4. FCR providing group validation

The check consists to verify that the specified FCR Providing Group is well associated to the contract valid at delivery date.

4.3.3.5. ServiceType validation

The check consists to verify that the provided ServiceType is valid for the providing group at the delivery date

4.3.3.6. Nomination details validation

- Volume check:
 - Minimum value is 0
 - Value between 0 and 1 are not valid
 - Only 1 decimal is accepted
 - Check if total volume is not greater than FCR obligation for this Service type at delivery date.
- Tick index: tick from 1 to 96 are valid.
 - Remark:
 - for Winter DST day change: 92 ticks
 - for Summer DST day change: 100 ticks
- Data before and within neutralization delay are ignored

Chapter 5. Messages specifications

5.1. FcrNominationDocument XML structure

5.1.1. Data structure FcrNominationDocument body XML.

5.1.1.1. Synopsis

Field	Cardinality	Data type	Description
deliveryDay	Mandatory	date	The delivery Period applicable for the whole message
contractReference	Mandatory	string	Contract reference
submit	mandatory	boolean	Indicates if the current bid must be set in status "submitted" (if all validations steps return ok).
GroupNominations	1 <= n	List of GroupNomination	List of GroupNomination

5.1.1.2. Detailed fields information

5.1.1.2.1. Field deliveryDay

This information represents the delivery day for which the FcrNominationDocument message is applicable.

Cardinality	Mandatory
Data type	date

5.1.1.2.2. Field contractReference

This information represents the contract reference like 'FCR-xxxx-2015'.

Cardinality	Mandatory
Data type	string

5.1.1.2.3. Field Submit

This information is used to specify if all the bids and values received in the message must be set in "submitted" status.

If the message is completely validated, the status of the bid will be set to "Submitted" if this field is set to "true". If this field is set to "false", the status will be set to "Saved" and that status to "Submitted" can be set manually through the web interface of BMAP.

5.1.1.2.4. Field GroupNominations

List of GroupNomination

This information describes the list of GroupNomination sent by the BSP for the delivery day.

Cardinality	1 <= n
Data type	list

5.1.2. Message parts

5.1.2.1. Data structure bid: Base information for a GroupNomination

5.1.2.1.1. Synopsis

Field	Cardinality	Data type	Description
FCRGroup	Mandatory	Int	Id of the FCRGroup
ServiceType	Mandatory	string	Service type associated to the current nomination
NominationsDetails	1 <= n	List of Nominations Details	List of Nomination details (QH details)

5.1.2.1.2. Detailed fields information

5.1.2.1.2.1 Field FCRGroup

This information describes the id of the current Nomination.

Cardinality	Mandatory
Data type	Int

5.1.2.1.2.2 Field ServiceType

This information describes the ServiceType used for the associated nomination.

Cardinality	Mandatory
Data type	string

The following table indicates the valid values:

Value	Description
Downward	Service type Downward
Upward	Service type Upward
Symmetric100	Service type Symmetric 100
Symmetric200	Service type Symmetric 200

5.1.2.1.2.3 Field NominationDetails

This field indicates the nomination details associated to the bid. Only QH after neutralization delay will be updated

Cardinality	1
Data type	List of NominationDetail

5.1.2.1.3. Field NominationDetail

This field indicates the details of the nomination for each QH. The number of QH is 96 except for DST days for which it can be 92 or 100.

Cardinality	92..100
Data type	NominationDetail

5.1.3. Data structure NominationDetail

5.1.3.1. Synopsis

Field	Cardinality	Data type	Description
volume	Mandatory	decimal	Specifies the power volume. Max 1 decimal is allowed
Tick	Mandatory	Int	Specifies the tick index for QH

5.1.3.2. Detailed fields information

5.1.3.2.1. Field volume

This field indicates the volume of power applicable for this bid.

The volume value must be either 0 or greater or equal to 1

Cardinality	mandatory
Data type	decimal

This field indicates the volume of power applicable for this bid and QH

5.1.3.2.2. Field tick

This field indicates the tick index applicable for this nomination.

Cardinality	Mandatory
Data type	Int

5.2. FcrNominationDocumentResponse structure.

5.2.1. Data structure FcrNominationDocumentResponse

5.2.1.1. XSD structure

The structure can be found in the following XSD:

5.2.1.2. Synopsis

Field	Cardinality	Data type	Description
BSP	Mandatory	Partner	Identifies the BSP based on its login
DeliveryDay	Mandatory	date	
bidDocumentStatus	Mandatory	boolean	Indicates if the FCRNominationDocument has been accepted or not
error	0 <= m	Error	

5.2.1.3. Detailed Fields information

5.2.1.3.1. Field BSP

This information represents the identification of the BSP based on the login used when the FcrNominationDocumentFcrNominationDocument has been sent.

Cardinality	Mandatory
Data type	Partner

5.2.1.3.2. Field deliveryDay

This information represents the delivery period for which the FcrNominationDocumentFcrNominationDocument message has been accepted (or rejected).

Cardinality	Mandatory
Data type	date

5.2.1.3.3. Field Status

If the FcrNominationDocumentFcrNominationDocument is accepted, this field will return "Submitted" or "Saved" depending on the submit field sent in FcrNominationDocumentFcrNominationDocument.

Cardinality	Mandatory
Data type	String

The following table indicates the valid values:

Value	Description
Saved	All FCRFCR nominations received are in 'Saved' status in BMAP
Submitted	All FCRFCR nominations received are in 'Submitted' status in BMAP
Rejected	Message has been rejected and so no update/insert has been performed in BMAP.

5.2.1.3.4. Field Error

Cardinality	0 <= n
Data type	Error

This contains the reason of rejected FCRNominationDocument (if Status='Rejected').

5.3. Generic message parts

5.3.1. Data structure Partner: Partner identifier

This data structure is used to identify a partner in a transaction. It forms part of several message structures.

The fact that the code type must be specified in addition to the code itself, allows users to use their preferred code type, provided it is recognised by the system.

In addition, the identity of a partner can be indicated in words to make messages easier to read for humans.

5.3.1.1. Synopsis

Field	Cardinality	Data type	Description
Name	mandatory	string	BSP Name
EIC	mandatory	string (16 characters)	EIC code

5.3.1.2. Detailed fields information

5.3.1.2.1. Field EIC

Code

Cardinality	optional
Data type	string (16 characters)
Min len.	1

5.3.1.2.2. Field Name

Friendly name

Cardinality	optional
Data type	string
Min len.	1

5.3.2. Data structure Error: error identifier

This data structure is used to identify the reason for message rejection. It forms part of several message structures.

5.3.2.1. Synopsis

Field	Cardinality	Data type	Description
ErrorCode	mandatory	string (3 characters)	Reason code
errorText	mandatory	string	

5.3.2.2. Detailed fields information**5.3.2.2.1. Field ErrorCode**

Cardinality	mandatory
Data type	string
Len	3

The following table indicates the valid values:

Value	ErrorText	Comment
A01	Message fully accepted. All received nominations are added/updated in the BMAP database	That means that bids are updated in BMAP database
W01	One or several submitted data do not respect the neutralization delay condition. These specific data will not be considered and stored	This means that message is accepted but some data is not stored as it is sent.
W02	Total Nominated volume (%s) lower than obligation volume (%s) for the service type '%s'	This means that the message is accepted but for one of the submitted QH the total nomination is lower than the obligation for a specific service type.
W03	Some nominated value are greater than obligation so submit status is not set	
E00	XSD validation error {XSD error}	The input file is not validated through the XSD structure as defined in this document.
E01	Contract Reference is not linked to the user login	The login used is not related to the specified contract reference
E02	Contract Reference is not valid at the specified Delivery day	The specified contract validity dates does not cover the delivery date.
E03	Not allowed to submit nominations for the specified delivery day	This means that there is no obligation for that day and so no nomination can be submitted at the delivery date
E13	Number of Ticks is not correct. Expected number of ticks {NbTicksExpected}/Received number of ticks {NbTicksReceived}	
E14	Incorrect FCR group number %s	The specified group number (integer value) is not known or not valid by Elia at specified Delivery Day.
E15	Nominated volume (%s) of the group '%s' higher than the prequalified volume (%s) of this group for the considered service type '%s'	If nominated volume is > Rref for the considered service type, the value is rejected and nomination cannot be saved.
E16	Total Nominated volume (%s) higher than obligation volume (%s) for the service type '%s'	Total Nominations cannot be higher than obligations for the same service type

5.3.2.2.2. Field reasonText

Reason Text

Cardinality	Mandatory
Data type	string
Min len.	1

See the list of valid ErrorCode to see the associated ErrorText.

5.4. Data types

The following table describes all the datatypes allowed in XML data structure specifications.

Data type	Typical XML representation	Lexical pattern	Comments
string		.*	The following constraints can be expressed: minimum length, maximum length, pattern, choice of valid values
int	-1, 0, 126789675, +100000	[-+]?[0-9]+	The following constraints can be expressed: minimum value, maximum value. Values must be between 2147483647 and -2147483648 inclusive.
decimal	-1.23, 12678967.543233, +100000.00, 210	[-+]?[0-9]+(\.[0-9]+)?	The following constraints can be expressed: minimum value, maximum value. Values must have at most 28 digits, with.
boolean	1, 0, true, false	1 0 true false	
code		.*	This is similar to string, but allowed values must be part of a documented "code table". The actual signification of the code table constraint is application-dependent
datetime	To indicate 1:20 pm on May the 31st, 1999 in Brussels which is 2 hours ahead of UTC, one would write: 1999-05-31T11:20:00Z	[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}?([+ -] [0-9]{2})? (: [0-9]{2})? ?	Represents a time instant. UTC notation is required. See also the example below for daylight saving time handling.
time	13:20:00Z	[0-9]{2}:[0-9]{2}:[0-9]{2}?([+ -] [0-9]{2})? (: [0-9]{2})? ?	Represents a time instant in the day. UTC notation is required. See also the example below for daylight saving time handling.
date	To indicate May the 31st, 1999, one would write: 1999-05-31	[0-9]{4}-[0-9]{2}-[0-9]{2}	Represents a calendar date.

Data type	Typical XML representation	Lexical pattern	Comments
Period	2015-04-01/2015-04-30	[0-9]{4}-[0-9]{2}-[0-9]{2}/[0-9]{4}-[0-9]{2}-[0-9]{2}	Represent the start date and an end date.
binary		Encoded binary data (the default encoding is base64)	Used to transfer data that is not unicode text.

Chapter 6. Sample message

6.1. FcrNominationDocument.

```
<FcrNominationDocument>
  <deliveryDay v="2017-08-30"/>
  <contractReference v="R1-018-2017"/>
  <submit v="true"/>
  <GroupNominations>
    <GroupNomination>
      <FcrGroup v="1"/>
      <ServiceType v="downward"/>
      <NominationDetails>
        <NominationDetail>
          <tick v="1"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="2"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="3"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="4"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="5"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="6"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="7"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="8"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="9"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="10"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="11"/>
          <volume v="107.0" />
        </NominationDetail>
        <NominationDetail>
          <tick v="12"/>
          <volume v="107.0" />
        </NominationDetail>
      </NominationDetails>
    </GroupNomination>
  </GroupNominations>
</FcrNominationDocument>
```

```
<tick v="13"/>
<volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="14"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="15"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="16"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="17"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="18"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="19"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="20"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="21"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="22"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="23"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="24"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="25"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="26"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="27"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="28"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="29"/>
```

```
<volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="30"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="31"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="32"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="33"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="34"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="35"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="36"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="37"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="38"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="39"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="40"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="41"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="42"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="43"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="44"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="45"/>
  <volume v="107.0" />
```

```
</NominationDetail>
<NominationDetail>
  <tick v="46"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="47"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="48"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="49"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="50"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="51"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="52"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="53"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="54"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="55"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="56"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="57"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="58"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="59"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="60"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="61"/>
  <volume v="107.0" />
</NominationDetail>
```

```
<NominationDetail>
  <tick v="62"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="63"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="64"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="65"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="66"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="67"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="68"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="69"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="70"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="71"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="72"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="73"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="74"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="75"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="76"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="77"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
```

```
<tick v="78"/>
<volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="79"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="80"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="81"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="82"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="83"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="84"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="85"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="86"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="87"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="88"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="89"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="90"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="91"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="92"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="93"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="94"/>
```



```

        <volume v="107.0" />
      </NominationDetail>
    <NominationDetail>
      <tick v="95"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="96"/>
      <volume v="107.0" />
    </NominationDetail>
  </NominationDetails>
</GroupNomination>
<GroupNomination>
  <FcrGroup v="2"/>
  <ServiceType v="upward"/>
  <NominationDetails>
    <NominationDetail>
      <tick v="1"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="2"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="3"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="4"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="5"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="6"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="7"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="8"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="9"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="10"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="11"/>
      <volume v="107.0" />
    </NominationDetail>
    <NominationDetail>
      <tick v="12"/>
      <volume v="107.0" />
    </NominationDetail>
  </NominationDetails>

```

```
<NominationDetail>
  <tick v="13"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="14"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="15"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="16"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="17"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="18"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="19"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="20"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="21"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="22"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="23"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="24"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="25"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="26"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="27"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="28"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
```

```
<tick v="29"/>
<volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="30"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="31"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="32"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="33"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="34"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="35"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="36"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="37"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="38"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="39"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="40"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="41"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="42"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="43"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="44"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="45"/>
```

```
<volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="46"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="47"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="48"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="49"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="50"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="51"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="52"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="53"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="54"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="55"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="56"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="57"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="58"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="59"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="60"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="61"/>
  <volume v="107.0" />
```

```
</NominationDetail>
<NominationDetail>
  <tick v="62"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="63"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="64"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="65"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="66"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="67"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="68"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="69"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="70"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="71"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="72"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="73"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="74"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="75"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="76"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="77"/>
  <volume v="107.0" />
</NominationDetail>
```

```
<NominationDetail>
  <tick v="78"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="79"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="80"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="81"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="82"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="83"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="84"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="85"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="86"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="87"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="88"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="89"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="90"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="91"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="92"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
  <tick v="93"/>
  <volume v="107.0" />
</NominationDetail>
<NominationDetail>
```

```

        <tick v="94"/>
        <volume v="107.0" />
      </NominationDetail>
      <NominationDetail>
        <tick v="95"/>
        <volume v="107.0" />
      </NominationDetail>
      <NominationDetail>
        <tick v="96"/>
        <volume v="107.0" />
      </NominationDetail>
    </NominationDetails>
  </GroupNomination>
</GroupNominations>
</FcrNominationDocument>

```

6.2. FcrNominationDocumentResponse

6.2.1. FcrNomination Response without error

```

<?xml version="1.0" encoding="UTF-8"?>
<FcrDocumentResponse>
  <BSP>
    <Name v="BSP name" />
    <EIC v="1234" />
  </BSP>
  <deliveryDay v="2016-06-13" />
  <contractReference v="Fcr-xxx-2017" />
  <status v="Submitted" />
</FcrDocumentResponse>

```

6.2.1. FCR Nomination Response with errors

```

<?xml version="1.0" encoding="UTF-8"?>
<FcrNominationDocumentResponse>
  <BSP>
    <Name v="BSP name" />
    <EIC v="1234" />
  </BSP>
  <deliveryDay v="2016-06-13" />
  <contractReference v="FcrCipu-xxx-2016" />
  <status v="Rejected" />
  <error>
    <errorCode v="E01"/>
    <errorText v="Contract Reference is not linked to the user login"/>
  </error>
</FcrNominationDocumentResponse>

```