Format of the data transmission between the Bratislava Stock Exchange and agencies

(updated: 30 September 2024, valid from: 1 April 2025)

Bratislava Stock Exchange (BSSE) provides agencies with a real-time data output by means of the information system **Burzové informačné centrum - BIS**. The information gives an exact picture of events in the spot market. The information value lies in the first place in timeliness of the provided data and therefore the promptness of the entire information provision system was among the major requirements at the time of designing the interface.

Information provided to agencies may be divided into the following groups:
- Basic data
  - Tiers
  - Issuers
  - Securities - Shares
  - Securities - Bonds
  - Public offers to takover
- Source data and results
  - Status of supply and demand for securities
  - Transactions
  - Reported direct transactions and REPO transactions
  - Daily summaries of securities
  - Indexes
- Supplemental data
  - Code tables

Transmission format description

The data is provided by the BSSE. That means the Stock Exchange produces the data and the agency ensures its further processing. The messages are numbered by sequential numbers ranging from 1 to n in the frame of each trading day and stored in files in such a way that each file contains one message. Name of the file characterizes the time ranking of the messages:
DDMMYYYY_<7-digit number of message in the given day>
(Example: 01071998_0000023 - 23rd message from July 1, 1998)

Transmission is carried out by means of the FTP protocol in such a way that the agency establishes the connection and ensures transmission of the file to its own side.

Transmitted data are divided into three phases:

Morning Transmission (R). Transmission of summary information about the status on the Stock Exchange prior to the start of trading.
Continuous Daily Transmission (D). Transmission of updated information about development of the trading on the BSSE.
Afternoon Transmission (P). Transmission of summary information about the status on the Stock Exchange after the daily closing of trading.

		Time of generating
<Record>::=	<Record RS0001 A>	; R, P
	<Record TRH001A>	; R
	<Record EM0001A>	; R, P
	<Record CPA001A>	; R, P
	<Record CPAD01A>	; R, D, P
	<Record CPD001A>	; R, P
	<Record CPDD01A>	; R, D, P
	<Record VP0001A>	; R, P
	<Record DSCP01A>	; R, P
	<Record OB0001A>	; D, P
	<Record ZO0001A>	; D, P
	<Record OBJK01A>	; R, D
	<Record OBJB01A>	; R, D
	<Record OBJT01A>	; R, D
	<Record UPO001A>	; P
	<Record REPO01A>	; P
	<Record IDX001A>	; P
	<Record IDXR01A>	; D
	<Record CIS001A>	; R, P

Note:
The following message transmission mechanism is recommended:
At the beginning of the day, the customer will try to download the file containing the message No 1.
Afterwards he will cyclically try to download the file containing the message with the number greater by 1. Should the connection break, the customer will download all files starting with the last message number.
The record code is comprised of an abbreviation, a record format version number, and a format sub-version letter code.
Change of version means a substantial change in the format, meaning an inclusion/exclusion of the field(s) in/from the message body, or a change of format of a certain field.
Change of subversion means for example adding a new field at the end of message. That means you have a possibility on your side to design a software application that will allow working with various versions.

If a field does not have an assigned value, the records will contain pre-defined value as follows:
- In the case of strings   - spaces
- In the case of numbers   - character "0" (ASCII 48)
- In the case of date   - characters "00000000" (ASCII 48 x 8)
- In the case of time   - characters "000000" (ASCII 48 x 6)
- In the case of logical variables   - character "N" (no)

If the field's real value does not take up the pre-defined size in the format, the individual fields will be leveled:
- To the right in the case of numbers
- To the left in the case of strings

Note:
For numerical entries, the decimal place separator will be a period or comma.

Note:
The BSSE's trading day schedule is comprised of time intervals (T10 to Tn). The time intervals specify also the time of generating the individual messages.

Time	Activity
T40 - 30 minutes	Morning transmission
T40 - 10 minutes	Daily continuous transmission permission
T50 + 20 minutes	Daily continuous transmission ban
T80 + 60 minutes	Afternoon transmission

Current Txx values:
T40 = 11:00
T50 = 15:30
T80 = 16:00

The following is the meaning of used abbreviations:

RS   - Control file
TRH   - Tier
EM   - Issuers of securities
CPA   - Securities - shares, static part
CPAD - Securities - shares, dynamic part
CPD   - Securities - bonds, static part
CPDD - Securities - bonds, dynamic part
VP   - Public offers to takeover
DSCP - Daily summaries of securities (price list equivalent)
OB   - Transactions closed on the BSSE
ZO   - Transactions cancelled on the BSSE
OBJK - Orders to buy and sell securities - continuous system
OBJB - Orders to buy and sell securities - block system
OBJT - Orders to buy and sell securities – market makers system
UPO - Rreported direct transactions of members
REPO - Closed REPO transaction of members
IDXP - Description of Stock Exchange Indexes
IDX   - Stock Exchange Indexes
CIS   - Code table of the electronic stock exchange trading system

Name: Control file.

Description: Only one record is sent. The record contains status information of the BSSE trading system that is needed i.e. for the calculation of allowable price spread for the given day, for the calculation of the AÚV, etc.

Time of generating:
R

	Type/Format	Length
<Record RS0001A> ::=		
<Record identification number>	; N/#7	7
RS0001A#	;	8
<Date of the last closing>	; D/DDMMYYYY	8
<Date of the last initiation>	; D/DDMMYYYY	8
<Date T+x-1 for AÚV>	; D/DDMMYYYY	8
<AÚV to calculate for T+x-1>	; N/#3	3
<Time30 - start of the auction trading>	; T/HHMM	4
<Time40 - start of the continuous trading>	; T/HHMM	4
<Time50 - end of the trading	; T/HHMM	4

Name: Tiers.

Description: Records contain tiers at the Bratislava Stock Exchange.

Time of generating:
R

	Type/Format	Length
<Record TRH001A> ::=		
< Record identification number >	; N/#7	7
TRH001A#	;	8
<Tier's number>	; N/#6	6
<Status>	; A/U1	1
<Segment of tier>	; N/#6	6
<Name of tier>	; A/X30	30
<Description of tier>	; A/X200	200
<MIC>	; A/X4	4

MIC – Market Identifier Code

Possible values of <Status>:
A – active
S – suspended
V – canceled

Name: Issuers of securities.

Description: Records contain identification of records of issuers of securities that are traded on the Bratislava Stock Exchange.

Time of generating:
R

	Type/Format	**Length**
\<Record EM0001A\> ::=		
\<Record identification number\>	; N/#7	7
EM0001A#	;	8
\<Name of issuer\>	; A/X30	30
\<Abbreviation of issuer\>	; A/U3	3
\<Address_street\>	; A/X20	20
\<Address_ZIP\>	; N/#5	5
\<Address_city\>	; A/X27	27
\<Year of foundation\>	; N/#4	4
\<Registered capital\>	; N/#12,4	17
\<Annual profit\>	; N/N#12,4	18
\<Date of finding the annual profit\>	; D/DDMMYYYY	8
\<IČO of issuer\>	; A/X15	15
\<LEI\>	; A/X20	20

LEI – Legal Entity Identifier

Name: Securities - shares, static part.

Description: Records contain identification of records of securities - shares - that are traded on the Stock Exchange. They contain data that do not change during the day and are valid for the whole day.

Time of generating:
R

	Type/Format	Length	
\<Record CPA001A\> ::=			
\<Record identification number\>	; N/#7	7	
CPA001A#	;	8	
\<Abbreviation of security\>	; A/#UUU##UX	8	
\<Name of security\>	; A/X20	20	
\<ISIN\>	; A/UU#10	12	
\<Unitary nominal value\>	; N/#7,4	12	
\<Date of issue\>	; D/DDMMYYYY	8	
\<Date of decisive day\>	; D/DDMMYYYY	8	
\<Date of dividend payout\>	; D/DDMMYYYY	8	*1
\<Net dividend\>	; N/#7,4	12	
\<Issue volume in units\>	; N/#12	12	
\<Name/Bearer\>	; A/U	1	
\<Profit per share\>	; N/N#11,4	17	
\<Type of share\>	; A/U	1	
\<Date of finding the annual profit\>	; D/DDMMYYYY	8	
\<Previous average\>	; N/#7,4	12	
\<Date of previous average\>	; D/DDMMYYYY	8	
\<Annual maximum price for 365 days\>	; N/#7,4	12	
\<Annual minimum price for 365 days\>	; N/#7,4	12	
\<P/E\>	; N/N#5,2	9	
\<Midrange\>	; N/#7,4	12	
\<Market capitalization\>	; N/N#11,4	17	
\<Market\>	; N/#6	6	
\<CFI\>	; A/X6	6	

*1 - mentioned date of the dividend payout will not be entered (i.e. the date = 0) unless it is introduced in the BSSE's trading system.

Possible values of \<Name/Bearer\>:
M – Name
D – Bearer

Possible values of \<Type of share\>:
A – Share
P – Unit
F – Shares of Investment Funds
L – Co-operative Units
V- Takeover Bid

CFI **-** Classification of Financial Instrument

Name: Securities - shares, dynamic part.

Description: Records contain a clear identification of the security plus the dynamic data that are calculated for the security during the trading day.

Time of generating:
D

	Type/Format	Length
<Record CPAD01A> ::=		
<Record identification number>	; N/#7	7
CPAD01A#	;	8
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Minimum price>	; N/#7,4	12
<Maximum price>	; N/#7,4	12
<Last price>	; N/#7,4	12
<Number of transactions>	; N/#6	6
<Number of units>	; N/#12	12
<Volume of transactions>	; N/#11,4	16
<Minimum request - continuous>	; N/#7,4	12
<Maximum request - continuous>	; N/#7,4	12
<Minimum offer - continuous>	; N/#7,4	12
<Maximum offer - continuous>	; N/#7,4	12
<Minimum request - blocks>	; N/#7,4	12
<Maximum request - blocks>	; N/#7,4	12
<Minimum offer - blocks>	; N/#7,4	12
<Maximum offer - blocks>	; N/#7,4	12

Name: Securities - bonds, static part.

Description: Records contain identification of the records of securities - bonds - that are traded on the Stock Exchange. They contain data that does not change during the day and is valid for the entire day..

Time of generating:
R

	Type/Format	Length
<Record CPD001A> ::=		
<Record identification number>	; N/#7	7
CPD001A#	;	8
<Abbreviation of security>	; A/#UUU##UX	8
<Name of security>	; A/X20	20
<ISIN>	; A/UU#10	12
<Unitary nominal value>	; N/#7,4	12
<Date of issue>	; D/DDMMYYYY	8
<Interest rate>	; N/#2,3	6
<Payment frequency in months>	; N/#2	2
<Maturity date>	; D/DDMMYYYY	8
<Next closest maturity date>	; D/DDMMYYYY	8
<Issue volume in units>	; N/#12	12
<Current unitary nominal value>	; N/#7,4	12
<Bond type>	; A/U	1
<Previous average>	; N/#7,4	12
<Date of previous average>	; D/DDMMYYYY	8
<Annual maximum price for 365 days>	; N/#7,4	12
<Annual minimum price for 365 days>	; N/#7,4	12
<Yield>	; N/#3,2	6
<Midrange>	; N/#7,4	12
<Market>	; N/#6	6
<CFI>	; A/X6	6

Possible values of <Bond type>:
D – Corporate bond
R – Government bond
T – T-bill

CFI **-** Classification of Financial Instrument

Name: Securities - bonds, dynamic part.

Description: Records contain a clear identification of the security plus the dynamic data that are calculated for the security during the trading day.

Time of generating:
D

	Type/Format	Length
<Record CPDD01A> ::=		
<Record identification number>	; N/#7	7
CPDD01A#	;	8
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Minimum price>	; N/#7,4	12
<Maximum price>	; N/#7,4	12
<Last price>	; N/#7,4	12
<Number of transactions>	; N/#6	6
<Number of units>	; N/#12	12
<Volume of transactions>	; N/#11,4	16
<Minimum request - continuous>	; N/#7,4	12
<Maximum request - continuous>	; N/#7,4	12
<Minimum offer - continuous>	; N/#7,4	12
<Maximum offer - continuous>	; N/#7,4	12
<Minimum request - blocks>	; N/#7,4	12
<Maximum request - blocks>	; N/#7,4	12
<Minimum offer - blocks>	; N/#7,4	12
<Maximum offer / blocks>	; N/#7,4	12

Name: Public offers to takeover.

Description: Records contain supplemental information about the public offer to takeover for the CPA file.

Time of generating:
D

	Type/Format	**Length**
\<Record VP0001A\> ::=		
\<Record identification number\>	; N/#7	7
VP0001A#	;	8
\<Abbreviation of VP\>	; A/#UUU##UX	8
\<ISIN of VP\>	; A/UU#10	12
\<Abbreviation of security\>	; A/#UUU##UX	8
\<ISIN\>	; A/UU#10	12
\<Date of filing of the public offer to takeover\>	; D/DDMMYYYY	8
\<Validity date\>	; D/DDMMYYYY	8
\<Requested % of the issue\>	; N/#3,2	6
\<Number of requested securities\>	; N/#12	12
\<Number of securities in the issue\>	; N/#12	12
\<Date of start of the public offer to takeover \>	; D/DDMMYYYY	8
\<Minimum allowed price\>	; N/#6,4	11
\<Title\>	; A/X6	6
\<First name\>	; A/X25	25
\<Surname\>	; A/X25	25
\<Address - street\>	; A/X30	30
\<Address - ZIP\>	; N/#5	5
\<Address - city\>	; A/X23	23
\<Date of fulfillment\>	; D/DDMMYYYY	8

Name: Daily summaries of securities (price list equivalent).

Description: Records contain summary information about the results of trading for the given trading day. Such a record will be created for a security for the trading day only in the case that there has been an offer, request, or other kind of transaction recorded for the security.

Time of generating:
P

	Type/Format	Length
<Record DSCP01A> ::=		
<Record identification number>	; N/#7	7
DSCP01A#	;	8
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Date of trading>	; D/DDMMYYYY	8
<Number of transactions>	; N/#6	6
<Number of units>	; N/#12	12
<Total sum>	; N/#11,4	16
<+Aliquot interest yield>	; N/N#11,4	17
<Maximum price>	; N/#7,4	12
<Minimum price>	; N/#7,4	12
<Maximum offer>	; N/#7,4	12
<Minimum offer>	; N/#7,4	12
<Maximum request>	; N/#7,4	12
<Minimum request>	; N/#7,4	12
<Last price>	; N/#7,4	12
<Today's average>	; N/#7,4	12
<Date of previous average>	: D/DDMMYYYY	8
<Previous average>	; N/#7,4	12
<P/E>	; N/N#5,2	9
<Yield>	; N/#3,2	6
<Number of direct transactions>	; N/#6	6
<Number of units of direct transactions>	; N/#12	12
<Total sum of direct transactions>	; N/#11,4	16
<+AÚV of direct transactions>	; N/N#11,4	17
<Maximum offer of block transactions>	; N/#7,4	12
<Minimum offer of block transactions>	; N/#7,4	12
<Maximum request of block transactions>	; N/#7,4	12
<Minimum request of block transactions>	; N/#7,4	12

Name: Transactions closed on the BSSE.

Description: Records contain detailed information about transactions closed by the BSSE's trading system. These are the transactions closed in electronic order book (price making modules) of trading system. Transaction anonymity is characteristic for all types of transactions on the Stock Exchange.

Time of generating:
D

	Type/Format	Length
\<Record OB0001A\> ::=		
\<Record identification number\>	; N/#7	7
OB0001A#	;	8
\<Sequential number\>	; N/#6	6
` \<Date of transaction\>	; D/DDMMYYYY	8
\<Time of transaction\>	; T/HHMMSS	6
\<Abbreviation of security\>	; A/#UUU##UX	8
\<ISIN\>	; A/UU#10	12
\<Nominal unitary value\>	; N/#7,4	12
\<Number of units\>	; N/#12	12
\<Price\>	; N/#7,4	12
\<Total sum\>	; N/#11,4	16
\<+Aliquot interest yield\>	; N/N#11,4	17
\<Type of transaction\>	; A/UU	2
\<JIO\>	; A/X38	38
\<ETF\>	; A/X25	25

Possible values of \<Type of transaction\>:
A – Trade from auction module
K – Trade from continuous module
T – Trade from market makers module

JIO   - Unique Trade Identification
             in format: YYYYMMDD*T*hhmmssddd**Z***TZD*knnnnnnt

YYYYMMDD*T*hhmmssddd**Z***TZD* (example: 20180123T102359765Z0100) ddd - miliseconds	Time of Trade Execution [*TZD* (Time Zone)] *T,Z* – character separators	*Possible values:* 0100 (means +01:00) 0200 (means +02:00)
k	Type of Transaction	*Possible values:* **P** – Reported direct trade **K** – Trade from continuous module **A** – Trade from auction module **T** – Trade from market makers module **R** - Repo Trade
n	Sequential number	
t	Type of security	*Possible values:* **D** - bond **A** - share

ETF   - list of appropriate MiFID II RTS1 and RTS2 post-trade transparency flags (comma separated)

Name: Transactions cancelled on the BSSE.

Description: Records contain detailed information about transactions cancelled by the BSSE's trading system or by the order of the head of trading. These are the transactions coming from electronic order book (price making modules) of trading system. Transaction anonymity is characteristic for all types of transactions on the Stock Exchange.

Time of generating:
D

	Type/Format	**Length**
<Record ZO0001A> ::=		
<Record identification number>	; N/#7	7
ZO0001A#	;	8
<Sequential number>	; N/#6	6
<Date of transaction>	; D/DDMMYYYY	8
<Time of transaction>	; T/HHMMSS	6
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Unitary nominal value>	; N/#7,4	12
<Number of units>	; N/#12	12
<Price>	; N/#7,4	12
<Total sum>	; N/#11,4	16
<+Aliquot interest yield>	; N/N#11,4	17
<Type of transaction>	; A/UU	2
<JIO>	; A/X38	38
<ETF>	; A/X25	25

Possible values of <Type of transaction>:
A – Trade from auction module
K – Trade from continuous module
T – Trade from market makers module

JIO   - Unique Trade Identification (identical format as for file OB0001A)

ETF   - list of appropriate MiFID II RTS1 and RTS2 post-trade transparency flags (comma separated)

Name: Orders to buy and sell securities - auction system and continuous system.

Description: Records contain information about the best orders on both the buy and sell side. The status in the five best price levels is listed.

Time of generating:
R, D

	Type/Format	Length
\<Record OBJK01A\> ::=		
\<Record identification number\>	; N/#7	7
OBJK01A#	;	8
\<Date of trading\>	; D/DDMMYYYY	8
\<Abbreviation of security\>	; A/#UUU##UX	8
\<ISIN\>	; A/UU#10	12
\<Number of units - sale 1\>	; N/#12	12
\<Best price - sale 1\>	; N/#7,4	12
\<Number of units - sale 2\>	; N/#12	12
\<Best price - sale 2\>	; N/#7,4	12
\<Number of units - sale 3\>	; N/#12	12
\<Best price - sale 3\>	; N/#7,4	12
\<Number of units - sale 4\>	; N/#12	12
\<Best price - sale 4\>	; N/#7,4	12
\<Number of units - sale 5\>	; N/#12	12
\<Best price - sale 5\>	; N/#7,4	12
\<Number of units - purchase 1\>	; N/#12	12
\<Best price - purchase 1\>	; N/#7,4	12
\<Number of units - purchase 2\>	; N/#12	12
\<Best price - purchase 2\>	; N/#7,4	12
\<Number of units - purchase 3\>	; N/#12	12
\<Best price - purchase 3\>	; N/#7,4	12
\<Number of units - purchase 4\>	; N/#12	12
\<Best price - purchase 4\>	; N/#7,4	12
\<Number of units - purchase 5\>	; N/#12	12
\<Best price - purchase 5\>	; N/#7,4	12

Name: Orders to buy and sell securities - block system.

Description: Records contain information about the best orders on both the buy and sell side. The maximum number of units is taken into account in orders. The status in the five best price levels is listed.

Time of generating:
R, D

	Type/Format	**Length**
<Record OBJB01A> ::=		
<Record identification number>	; N/#7	7
OBJB01A#	;	8
<Date of trading>	; D/DDMMYYYY	8
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Number of units - sale 1>	; N/#12	12
<Best price - sale 1>	; N/#7,4	12
<Number of units - sale 2>	; N/#12	12
<Best price - sale 2>	; N/#7,4	12
<Number of units - sale 3>	; N/#12	12
<Best price - sale 3>	; N/#7,4	12
<Number of units - sale 4>	; N/#12	12
<Best price - sale 4>	; N/#7,4	12
<Number of units - sale 5>	; N/#12	12
<Best price - sale 5>	; N/#7,4	12
<Number of units - purchase 1>	; N/#12	12
<Best price - purchase 1>	; N/#7,4	12
<Number of units - purchase 2>	; N/#12	12
<Best price - purchase 2>	; N/#7,4	12
<Number of units - purchase 3>	; N/#12	12
<Best price - purchase 3>	; N/#7,4	12
<Number of units - purchase 4>	; N/#12	12
<Best price - purchase 4>	; N/#7,4	12
<Number of units - purchase 5>	; N/#12	12
<Best price - purchase 5>	; N/#7,4	12

Name: Orders to buy and sell securities – market makers system

Description: Records contain information about the best orders on both the buy and sell side. The maximum number of units is taken into account in orders. The status in the five best price levels is listed.

Time of generating:
R, D

	Type/Format	**Length**
<Record OBJT01A> ::=		
<Record identification number>	; N/#7	7
OBJT01A#	;	8
<Date of trading>	; D/DDMMYYYY	8
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Number of units - sale 1>	; N/#12	12
<Best price - sale 1>	; N/#7,4	12
<Number of units - sale 2>	; N/#12	12
<Best price - sale 2>	; N/#7,4	12
<Number of units - sale 3>	; N/#12	12
<Best price - sale 3>	; N/#7,4	12
<Number of units - sale 4>	; N/#12	12
<Best price - sale 4>	; N/#7,4	12
<Number of units - sale 5>	; N/#12	12
<Best price - sale 5>	; N/#7,4	12
<Number of units - purchase 1>	; N/#12	12
<Best price - purchase 1>	; N/#7,4	12
<Number of units - purchase 2>	; N/#12	12
<Best price - purchase 2>	; N/#7,4	12
<Number of units - purchase 3>	; N/#12	12
<Best price - purchase 3>	; N/#7,4	12
<Number of units - purchase 4>	; N/#12	12
<Best price - purchase 4>	; N/#7,4	12
<Number of units - purchase 5>	; N/#12	12
<Best price - purchase 5>	; N/#7,4	12

Name: Reported direct transactions of members.

Description: Records contain detailed information about the reported direct transactions of members. Reported transactions in the trading system are anonymous only for non-participating parties.

Time of generating:
P

	Type/Format	Length
<Record UPO001A> ::=		
<Record identification number>	; N/#7	7
UPO001A#	;	8
<Sequential number>	; N/#6	6
<Date of entry>	; D/DDMMYYYY	8
<Date of transactions>	; D/DDMMYYYY	8
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Number of units>	; N/#12	12
<Price>	; N/#7,4	12
<Total sum>	; N/#11,4	16
<+Aliquot interest yield>	; N/N#11,4	17
<JIO>	; A/X38	38
<ETF>	; A/X25	25

JIO — Unique Trade Identification (identical format as for file OB0001A, the time stamp represents the time when the transaction was reported)

ETF — list of appropriate MiFID II RTS1 and RTS2 post-trade transparency flags (comma separated)

Name: Closed REPO transactions of members.

Description: Records contain detailed information about the closed REPO transactions of members. Transactions in the trading system are anonymous only for non-participating parties.

Time of generating:
P

	Type/Format	**Length**
<Record REPO01A> ::=		
<Record identification number>	; N/#7	7
REPO01A#	;	8
<Sequential number>	; N/#6	6
<Date of entry>	; D/DDMMYYYY	8
<Date of transaction>	; D/DDMMYYYY	8
<Abbreviation of security>	; A/#UUU##UX	8
<ISIN>	; A/UU#10	12
<Number of units>	; N/#12	12
<Price>	; N/#7,4	12
<Total sum>	; N/#11,4	16
<+Aliquot interest yield>	; N/N#11,4	17
<Record type REPO>	; A/UU (see code table)	2
<Date of REPO>	; D/DDMMYYYY	8
<Sequential number of relative record>	; N/#6	6
<JIO>	; A/X38	38
<ETF>	; A/X25	25

Possible values of <Record type REPO>:
O – Opening of REPO trade
P – Period extension of REPO trade (REPO trade prolongation)
V – Return of securities (transfer of securities to the original owner)
C – Partial return of securities
Z – Cancellation (discontinuance) of REPO trade

JIO   - Unique Trade Identification (identical format as for file OB0001A)

ETF   - list of appropriate MiFID II RTS1 and RTS2 post-trade transparency flags (comma separated)

Name: Description of Stock Exchange indexes.

Description: Records contain description of fields of the Stock Exchange indexes. For each item in the index, a separate record is sent that bears information about the full name of the item, item's sequential number in the frame of the index, and format of the number (i.e. number of digits before and after the decimal point).

Time of generating:
R

	Type/Format	Length
<Record IDXP01A> ::=		
<Record identification number>	; N/#7	7
IDXP01A#	;	8
<Name of index>	; A/U10	10
<Name of item>	; A/U40	40
<Number of item in record>	; N/3	3
<Format>	; A/6	6

Name: Stock Exchange indexes.

Description: Records contain values of the Stock Exchange indexes. A separate record is sent for each value of the index. Number of the item in the record relates to the IDXP record with the name of the index.

Time of generating:
P

	Type/Format	**Length**
<Record IDX001A> ::=		
<Record identification number>	; N/#7	7
IDX001A#	;	8
<Name of index>	; A/U10	10
<Date>	; D/DDMMYYYY	8
<Number of item in the record>	; N/3	3
<Value of index>	; A/15	15

Name: Stock Exchange indexes.

Description: Records contain values of the Stock Exchange indexes generated online during trading time. A separate record is sent for each value of the index. Number of the item in the record relates to the IDXP record with the name of the index.

Time of generating:
D

	Type/Format	**Length**
<Record IDXR01A> ::=		
< Record identification number >	; N/#7	7
IDXR01A#	;	8
<Name of index>	; A/U10	10
<Date>	; D/DDMMYYYY	8
<Time>	; T/HHMMSS	6
<Number of item in the record>	; N/3	3
<Value of index>	; A/15	15

Name: Code table of the BSSE's Electronic Stock Exchange Trading System.

Description: Records contain allowed values of selected fields that are located in the individual parts of the interface.

Time of generating:
R, P

	Type/Format	**Length**
<Record CIS001A> ::=		
<Record identification number>	; N/#7	7
CIS001A#	;	8
<Acronym>	; A/U8	8
<Code>	; A/X10	10
<Text>	; A/X55	55
<Value>	; N/#7	7

Nomenclature:

Types	A	- alphanumeric
	N	- numeric
	T	- time
	D	- date
	L	- logical

Formats	N	- +/- character (only "-" is mentioned typically)
	#	- digit
	X	- optional character
	U	- capital letter
	L	- small letter

Examples:

X30	- 30 optional characters ("a trial string")
N#11	- "-" character followed by a maximum 11-digit cardinal number ("-12345", "12345678901", "0", "-12345678901)
#7,2	- a real number containing seven digits before the decimal point and two digits after the decimal point. The separator is the comma "," character. ("1234567,12", "0,01", "0,00")
#UUU##UX	- a digit followed by three capital letters, followed by two digits, a capital letter and an optional character. ("1SLN01A", "2XXX01C*")

Assignment of code tables to the fields in the interface

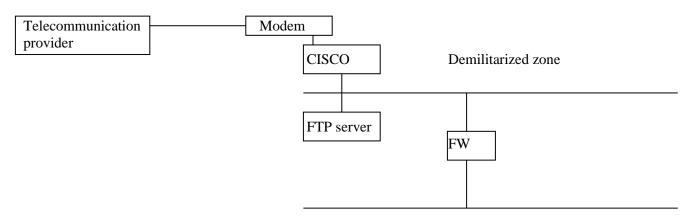| Field	Code table acronym
<Code of unitary nominal value>	NOMHODCP
<Transaction type>	TYPOBCH
<Share type>	TYPCPA
<Bond type>	TYPCPD
<Market>	TRH
<Market segment>	SEGMTRHU
<Name/Bearer>	MENDOR
<Record type REPO>	VETAREPO
<Index identifier>	INDEX

Technical solution of the connection for agencies

At present there are two possibilities:

1, Solution A

```
┌────────────────────┐                    ┌──────────────┐
│ Telecommunication  │────────────────────│    Modem     │
│ provider           │                    └──────────────┘
└────────────────────┘                         │
                                        ┌──────────────┐
                                        │    CISCO     │        Demilitarized zone
                                        └──────────────┘
                                             │
                              ┌──────────────────────────────────────────────────
                                             │
                                    ┌──────────────┐        │
                                    │  FTP server  │   ┌──────────┐
                                    └──────────────┘   │    FW    │
                                                       └──────────┘
                                                            │
                              ──────────────────────────────────────────────────
```

To establish a connection to the BSSE it is necessary for an agency to provide a connection to the CISCO router of the Bratislava Stock Exchange. The connection may use either a dial-up line, or a leased line (either analogue or digital), or any other line designed by the agency itself (i.e. a satellite). A pre-requisite is to provide a modem with the interface RS 232, X.21, or V.34. In Bratislava it is now reportedly possible to agree on an ISDN with the Telecom. We have no experience with this, however, we have the CISCO router with 1 ISDN BRI port.

In the case of a dial-up connection, we have a positive experience with the Microcom modems, or AT&T with the RS 232 interface.

In the case of a leased line with the modem Nokia BB128k with the interface X.21 and a 2-wire analogue connection within Bratislava, for a remote connection it will be probably inevitable to use slower speeds, or a digital circuit.

Transfer protocol will be the TCP/IP, IP addresses will be agreed upon during installation.

In terms of safety, each agency has to resolve protection of its network alone as there will be also other agencies on the demilitarized zone.

2, Solution B

Second solution is using internet, where on WEB server of the Bratislava Stock Exchange WWW.BSSE.SK will be established FTP server and folder with files for agencies.