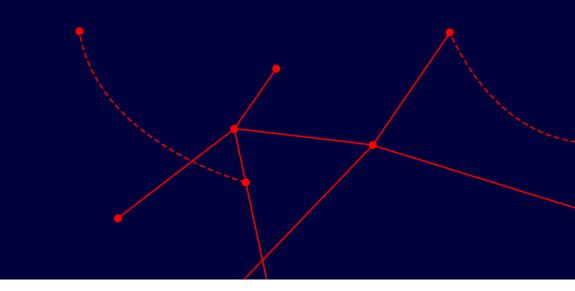
Managed Trading Services
Ticket feed integration instructions
for ticket version 2.2 based on
UOF
January 2019







Version	Author	Date	Comment
3.1	Kirill Mavrodiev	2017-09-28	Added description of:
3.2	Kirill Mavrodiev	2019-01-31	 MTS ticket version updated by 2.2. Main changes compare to 2.0: 14 Appendix E (MTS ticket version 2.2 vs 2.0) Integration flow updated Rejection codes were updated: 13 Appendix D (Validation codes) New ticket cancellation response -2018 "Cannot be cancelled because ticket is already cancelled" Added 6.9 Alternative odds (previously referred to as – "odds change auto acceptance") MTS CI email address changed to mtsci@sportradar.com from MTS-ClientIntegration@sportradar.com

Page | 2



1	INT	RODUCTION	5
2	PRF	C-CONDITIONS	5
3	INT	EGRATION FLOW	6
	3.1	UOF CERTIFICATION	9
4	- '	NTACTS	
5		NNECTIVITY	
	5.1	CONNECTION ENDPOINTS	
	5.2		
6	THI	E TICKET TRANSFER PROTOCOL	12
	6.1	TICKET ACCEPTANCE FLOW	
	6.1.1		
	6.1.2		
	6.2	TICKET JSON FORMAT	
	6.3	SELECTION ID IN CASE OF UOF	
	6.4	BET TYPE VALUES	
	6.5	TICKET RESPONSE	
	6.6	ALTERNATIVE STAKEBET RE-OFFER FOR PRE-MATCH	
	6.7 6.8	TECHNICAL SPECIFICATION	
	6.9	ALTERNATIVE ODDS (PREVIOUSLY REFERRED TO AS – "ODDS CHANGE AUTO ACCEPTANCE")	
	6.9.1	,	
	6.10	TICKET CANCELLATION	
	6.10		
	6.10		
	6.11	CASH OUT	
	6.11		
	6.11	· · · · · · · · · · · · · · · · · · ·	
	6.11	.3 Cash Out request format	35
	6.11	.4 Ticket Cash Out response	35
7	SPO	PRTBETTING BONUS	37
8	TIC	KET ACCEPTANCE AND TICKET CANCELLATION ACKNOWLEDGEMENT	38
	8.1	TICKET CANCELLATION ACKNOWLEDGEMENT	39
9	EXC	THANGE RATES	40
1() 1	PPENDIX A: VALID TICKETS	41
1(
	10.1	TICKET WITH LIVE SINGLE BET WITH 3-WAY MARKET	
	10.2		
	10.3 10.4	DOUBLE PRE-MATCH TREBLE ON PRE-MATCH AND LIVE	
	10.4	SYSTEM 3 / 4	
	10.5	SYSTEM 3 / 4 INCLUDING 1 BANKER	
	10.7	SYSTEM 3 / 5 INCL 1 WAYS.	
	10.7	SYSTEM 3 / 5 INCLUDING 1 WAYS INCLUDING 1 BANKER	
	10.9	CHAMPIONSHIP OUTRIGHT	
	10.10	Podium Outright	
	10.11	TWO SINGLE BETS ON THE SAME EVENT WITHIN ONE TICKET	
	10.12	4-FOLD ACCUMULATOR WITH 80 CENTS SPORT-BETTING BONUS	
	10.13	MULTI-SYSTEM BETS TICKET WITH DIFFERENT STAKES	55
	10.14	MULTI-SYSTEMS TICKET WITH DIFFERENT NUMBER OF SELECTIONS AND WITH DIFFERENT UNIT-	-STAKES
	10 15	56 TICKET ACKNOWI EDGMENT: REJECTED TICKET BY MTS BUT ACCEPTED BY BOOKMAKER	57



10.16	TICKET CANCELLATION ACKNOWLEDGEMENT COMMUNICATION	59
10.17	BET RE-OFFER ACCEPTED BY MTS EXAMPLE	
10.18		
10.19	CASHOUT REQUEST ACCEPTED BY MTS	65
10.20	CASHOUT REQUEST DECLINED BY MTS	67
10.21	BET WITH ENABLED ALTERNATIVE ODDS	68
11 A	APPENDIX B INVALID TICKETS	70
11.1	Breaching liability limit	70
11.2	EXCEEDING MAXIMUM PAYOUT LIMIT	71
11.3	STAKE IS LOWER THAN MINIMUM STAKE LIMIT	72
11.4	OUTCOME IS NOT ACTIVE	73
12 A	APPENDIX C TICKET CANCELLATION	75
12.1	CANCELLATION REQUEST	75
12.2	RESPONSE FOR THE VALID CANCELLATION REQUEST	75
12.3	RESPONSES FOR INVALID CANCELLATION REQUESTS	75
12	3.1 Ticket not found	75
12	3.2 Cancellation type is not active	76
13	APPENDIX D (VALIDATION CODES)	77
14 A	APPENDIX E (MTS TICKET VERSION 2.2 VS 2.0)	83
14.1	MTS TICKET VERSION 2.2	83
4.1	MTS TICKET RESPONSE VERSION 2.2.	83
5 AP	PENDIX F (JSON SCHEMAS)	84
5.1	TICKET JSON SCHEMA 2.2	
5.2	TICKET ACCEPTANCE RESPONSE JSON SCHEMA 2.2	90
5.3	TICKET CANCELLATION JSON SCHEMA 2.2	
5.4	CANCELLATION RESPONSE JSON SCHEMA 2.2	
5.5	TICKET ACKNOWLEDGMENT JSON SCHEMA 2.2	
5.6	TICKET CANCELLATION ACKNOWLEDGEMENT JSON SCHEMA 2.2	
5.7	TICKET CASHOUT JSON SCHEMA 2.2	
5.8	TICKET CASHOUT RESPONSE JSON SCHEMA 2.2.	
5.9	TICKET RE-OFFER JSON SCHEMA 2.2	102

Page | 4



1 Introduction

The technical integration to Managed Trading Services is performed together with one of Sportradar's MTS Client Integration (CI) engineers using a permanent chat room e.g. Skype or Slack.

During the integration phase the MTS functionality and risk limit configuration will be carried out by representatives from the MTS Operational Account Management (OAM) to ensure the ideal settings are put in place. MTS integration flow on high level is mentioned in 3 Integration flow.

MTS is Sportradar service based on <u>UOF</u> which provides risk management for sports and eSports. Communication between the operator's backend and MTS backend is based on asynchronous AMQP communication. JSON objects are used for these communications. In case Client uses Java or .Net on backend then it is recommended to use MTS SDK:

- http://sdk.sportradar.com/mts/java
- http://sdk.sportradar.com/mts/net

Ticket acceptance flow is mentioned in chapter 6.1 Ticket acceptance flow.

To get introduced to the MTS ticket format it is recommended to check example 10.1 Ticket with Live single bet with 3-Way market. Detailed JSON format of MTS messages are mentioned in 6 The ticket transfer protocol. All Bet acceptance codes, examples of bets, bet cancelations, Cashouts and JSON schemas are mentioned in the appendixes of this document and are available as separate .txt/.json files.

After launch support: 48 hours after the go live the client is handed over to Sportradar's support structure to guarantee the best possible service. Our support teams work out of a ticketing system, so all e-mails sent to support@sportradar.com will be routed through there and monitored 24/7/365. After emailing our team, the subject line will be appended with a unique ticket number. This may be helpful for future reference when following up on issues or questions.

All business relevant communication regarding MTS operations will be handled by a dedicated MTS Operational Account Manager (OAM). In case of off hours, you can address issues to MTS-Client-Management@sportradar.com.

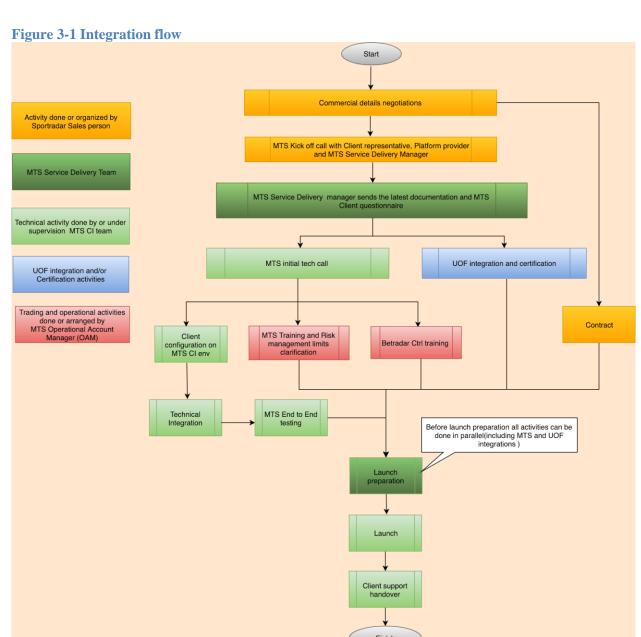
2 Pre-conditions

- Commercials are agreed
- Operator or Platform provider is ready to start technical integration

Note: It is not required to have integrated UOF to start MTS Integration. MTS Integration and UOF integration can be completed in parallel.



3 Integration flow



- The first interaction between an MTS Client and the MTS Service Delivery team commences during the MTS kick off call. This call is arranged by the relevant Betradar Sales person after commercial details are agreed. Participants for the kick off call should be the operator's, representatives from the platform provider, MTS Service Delivery and MTS Operational Account Manager (OAM) representatives. The following will be discussed during this call:
 - a. The MTS integration flow;
 - b. Date for starting integration and planned launch date. Please note resources are planned within the MTS Client Integration(CI) team based on these dates;
 - c. Scheduling of the initial technical call with developers from the MTS client side and MTS CI engineers.
- 2. After the kick off call the MTS Service Delivery manager:
 - a. Creates a dedicated Skype or Slack chat which is used for communication with MTS Client Integration team during the integration phase with MTS;



- b. Sends the latest version of the MTS ticket integration document and AMQP ticket feed documentation on the client;
- c. Sends MTS client questionnaires to the client;
- d. Introduces the client to the Betradar Partner Certification team. This team is responsible for UOF certification. Feed certification is one of the prerequisites for the launch of the MTS service.
- 3. Technical client integration starts from an initial Skype or Slack conference call. Participates of this call are the MTS CI team and a technical representative(s) from the client side. The following will be discussed during this call:
 - a. Integration flow
 - b. Ticket acceptance flow which is mentioned in chapter 6.1 Ticket acceptance flow
 - c. Benefits of using MTS Java or .Net SDK.
 - i. In case MTS SDK cannot be used, AMQP communication concept between the client's platform and MTS
 - d. Possibility of sending production tickets to the MTS CI environment without following MTS suggestions/replies for testing purposes
 - e. Frequently asked questions for integration or launch.
- 4. After the MTS CI Lead receives a completed technical questionnaire and client's public GPG certificate (OpenPGP format) from the client, the "Client Configuration on MTS CI" phase starts with:
 - a. Client's bookmaker account (BMID) is subscribed to Managed Trading Services
 - b. Client's IPs are added to MTS CI environment whitelists (Note: Any additional white-listening IP request has to be sent to MTS CI via email "mtsci@sportradar.com")
 - c. MTS CI team sets up RabbitMQ for the client's ticket feed to MTS CI environment
 - d. Appropriate limitID's are created on MTS CI environment.

Note: It might happen that several limitIDs will be created for the same client. E.g. separate limitID's for different distribution channels. This fact must be taken in account while development.

- 5. Credentials encrypted with GPG are sent to the pre-agreed recipient. More about GPG encryption can be found here: https://www.gnupg.org/gph/en/manual/x110.html or https://www.gpg4win.org/
 - a. Note: In case of credentials being lost, they cannot be restored. If credentials are lost, new credentials will be created
- 6. After the Client receives AMQP credentials and limitID's the Client integrates the ticket feed to MTS with support from MTS CI team in a dedicated Skype chat. This phase is called "**Technical Integration**".
- 7. In parallel to the ticket feed implementation, the MTS OAM manager is
 - a. Discussing risk limits setup and ticket cancellation configuration for the MTS production environment:
 - i. Minimum stake limit
 - ii. Maximum stake limit
 - iii. Maximum payout limit
 - iv. Maximum liability limit
 - v. Live and Pre-match bet factors
 - vi. Live time delay
 - vii. Bet cancellation types
 - viii. Acknowledgement period

Note: The prerequisite is a completed MTS client questionnaire by the client

- b. Arranging Betradar Ctrl training. This training is regarding Betradar feeds configuration from a business and operational perspective (e.g. odds key/configuration)
- 8. Parallel to the MTS CI and OAM activities, the Betradar Partner Certification team is performing the UOF certification on the client's platform.
- 9. After the client has completed the MTS ticket feed implementation, an end-to-end test is performed by MTS CI team which includes:
 - a. Placing bets on the client's sportsbook solution and verifying ticket JSON objects on the MTS side
 - b. Verification of reaction on bet acceptance suggestion (bet accepted and rejected)
 - c. Verification of quality of UOF integration (if the client can send production tickets to the MTS CI environment)



Note: Issues found during testing will require correction by the client or provision of an estimated time of issue resolution.

Note: Although not mandatory it is recommended to have the feed certification completed before the start of end to end testing. In exceptional circumstances end to end testing can start before feed certification, if the certification date has been scheduled.

- 10. After successful completion of end-to-end testing, launch preparation phase starts which includes:
 - a. Review of MTS end-to-end test results by MTS Service Delivery manager
 - b. Review of UOF certification results by Betradar Partner Certification team and MTS Service Delivery managers
 - c. Contract finalization by MTS Business Development Manager, Assistant and Sportradar Legal department
 - d. Verification of Risk Management limits
 - e. Verification of UOF configuration by MTS OAM
 - f. Client is configured on MTS production environment
- 11. With MTS end-to-end testing, UOF certification completed and a signed MTS contract, launch date is agreed with Client and MTS Service Delivery manager
- 12. The launch confirmation email is followed by MTS production credentials encrypted with GPG
- 13. After agreed date and time MTS CI team assists Operator to switch sportsbook to MTS Production
- 14. For the first 48 hours after launch MTS CI supports and monitors the client directly. After 48 hours, client support is handed over to the Sportradar Support Team. Any issues should then be addressed directly to Sportradar Support.

Note: By default, all tickets coming to MTS production are assumed as genuine production tickets and will be invoiced accordingly. All testing, demos and training for any employee must be carried out via the MTS CI environment.



3.1 UOF certification

Quality validation of UOF integration to the client's platform is part of the integration with MTS which is completed by the Betradar Partner Certification program team. This activity aims to reduce number of bets sent to MTS with outdated data: status of event, market, selections and odds values. After feeds certification is scheduled, one iteration of feeds certification takes no longer than 5 business days. If there are issues during the process, another iteration will be scheduled once a defined for the fix is made available.

For further details please contact partner-certification@sportradar.com.

Note: It is not required to have integrated UOF to start MTS Integration. MTS Integration and UOF integration can be completed in parallel.



4 Contacts

Technical assistance:

The MTS CI team is supporting the client throughout the entire MTS integration period and for the first 48 hours directly after the launch. The MTS CI team is available during the integration period via a dedicated Skype/Slack chat room or by email: mtsci@sportradar.com.

Support for production issues:

After launch support period of 48 hours has passed, support is then handed over to our standard 24/7 Sportradar Support Team (via email support@sportradar.com) who will ensure support availability and issue management.

For all enquiries relating to the usage of the Sportradar feeds and other Services, it is recommended to contact Sportradar Support directly.

UOF certification:

Main contact for UOF certification: partner-certification@sportradar.com.

Operational

In the case of any operational issues, please contact the MTS Operational Account Manager (OAM): MTS-Client-Management@sportradar.com.

MTS Business development:

In case of contractual or commercial topics please email to MTS-BusinessDevelopment@sportradar.com



5 Connectivity

5.1 Connection endpoints

Client integration environment (AMQP over TLS 1.2 secure connection)

Host mtsgate-ci.betradar.com

Port **5671**

Production environment (AMQP over TLS 1.2 secure connection)

Host mtsgate-t1.betradar.com

Port **5671**

5.2 AMQP protocol and MTS SDK

MTS protocol is delivered via AMQP messaging protocol.

For .NET and Java clients, the preferred and most convenient means of integration is through MTS SDK library:

- http://sdk.sportradar.com/mts/net
- http://sdk.sportradar.com/mts/java

Please refer to "MTS Java SDK Developer Guide" and "MTS .NET SDK Developer Guide" for a quick way to get you started.

For other languages please consult "MTS-integration with AMQP" where you will be able to find all the information regarding messaging principles with AMQP, as well as initial hints on how to approach the first MTS AMQP messaging setup. Also included are important MTS specific knowledge and illustrative code examples, with more advanced links and hints to help you progress with MTS integration on the protocol level.

MTS "Border" RabbitMQ cluster is running version 3.7.x, which should guide you when choosing a compatible AMQP client library.

www.sportradar.com



6 The ticket transfer protocol

6.1 Ticket acceptance flow

The ticket acceptance flow (which is reflected in diagram "Figure 6-1 Ticket acceptance flow" on page 13) is described below:

1. Ticket is assembled to JSON object and sent to MTS

Note: In case of MTS SDK, it is done by MTS SDK. This is one of many benefits of MTS SDK.

- 2. MTS sends consumer acknowledgement (basic ack) in case message is received by MTS
 - o If the consumer acknowledgement is not received on the client side, then it should be considered that MTS didn't receive the initial message with ticket-JSON.
- 3. After the ticket is received, MTS replies with suggestion as to whether the ticket should be accepted or rejected. (Average replay time is 25 ms)

Note: In the case of live bets, MTS applies a live time delay of up to 6 seconds.

- o If the Client does not receive a reply within 3 seconds (pre-match) and 10 seconds (live) then the client/operator should reject the bet and send bet cancellation 102 to MTS
- 4. After the Client/Operator receives a bet acceptance/rejection suggestion then the flow is split into two branches which are reviewed in separate chapters as detailed below.

6.1.1 MTS accepts ticket

By default, we (MTS) are expecting that the client is following MTS Suggestion. In other words, if MTS accepts the bet then the same bet should be accepted by the Client. If there is a need to reject a bet which was accepted by MTS then:

1. A bet cancellation request should be sent to MTS

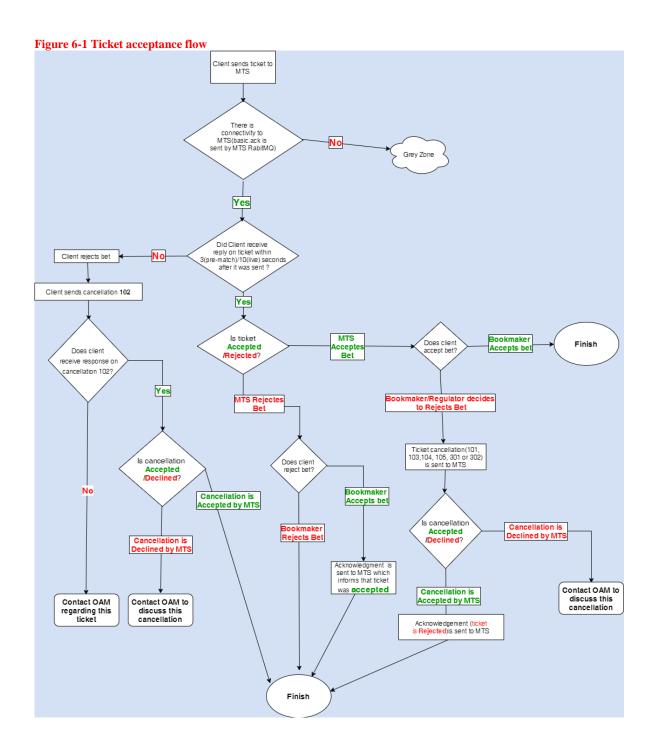
Note: There are different bet cancellation types for the various of business and technical flows. For more details Chapter **6.10 Ticket cancellation**

- 2. If a bet cancellation request is accepted by MTS, then
 - a. The Client rejects the bet
 - b. After the bet is rejected on the client side then the appropriate Acknowledgement message is sent to MTS to confirm that the bet was rejected
- 3. If a bet cancellation request is declined by MTS, then the client should retain the bet as accepted.
 - a. If the bet still needs to be rejected, then the client should contact the MTS Operational Account Manager (OAM): MTS-Client-Management@sportradar.com

6.1.2 MTS rejects ticket

If MTS rejects the bet, then we (MTS) are expecting that the client is also rejecting the bet. If there is need to accept a bet which was rejected by MTS, then the client should send the appropriate Acknowledgment message to MTS. For cases when bet was rejected due to risk management reasons, MTS offers **Alternative Stake** (for live and pre-match) and **Bet re-offer for pre-match** functionalities.





6.2 Ticket JSON format

As it was mentioned above all communication between Bookmaker's backend and MTS is done based on JSON objects via AMQP protocol. To track changes in JSON objects in MTS applied ticket versioning, Current MTS ticket version is 2.2. In this chapter, the Ticket JSON object is described in human readable form. For each JSON object/sub-object/array in field "Nesting" there is a separate table name with a detailed description of the particular object or array.

For better understanding, several examples are provided in chapter 10 Appendix A: Valid Tickets. Examples are ordered based on complexity of bet type: starting from simple cases and finishing by complex multi-system bets with different amount of selections and different stakes per combination.

with different amou



In addition to examples, JSON schemas are also added for all communication types in chapter **5** Appendix F (JSON schemas):

- Ticket JSON schema 2.2
- Ticket acceptance response JSON schema 2.2
- Ticket cancellation JSON schema 2.2
- Cancellation response JSON schema 2.2
- Ticket Acknowledgment JSON schema 2.2
- Ticket cancellation acknowledgement JSON schema 2.2
- Ticket cashout JSON schema 2.2
- Ticket cashout response JSON schema 2.2
- Ticket re-offer JSON schema 2.2

All examples and schemas are available in separate text files. If any of these are missing, please request via email directly from the MTS Client Integration team mtsci@sportradar.com or in MTS integration Skype/Slack chat.

The next chapters describe the format for bet cancellation messages, replies from MTS on ticket and ticket cancellation requests, and acknowledgement messages.



Table 6-1 Generic part of a ticket (format version 2.2)

Parameter name	Nesting	Mandatory/ Optional	Data type	Description	
version	No	Mandatory	string	Ticket format version. (Currently must be '2.2')	
timestampUtc	No	Mandatory	integer	Timestamp of ticket placement (in UNIX time millis); minimum: 1; maximum: 9223372036854775807.	
ticketId	No	Mandatory	string	Unique ticket id (in the client's system); minLength": 1; maxLength: 128	
Table 6-2 Sender object Mandatory object		Identification and settings of the ticket sender. In other words, this object contains information about distribution channel information, punter and device from which ticket was placed.			
selections	Table 6-5 Selections Array	Mandatory	array	Array of all selections. Order is very important as they can be referenced by index in 'ticket.bets.selectionRefs'	
bets	Table 6-6 Bets Array	Mandatory	array	List of bets in the ticket	
oddsChange	No	Optional	String	Enum: • none - no odds change accepted (default) • any - any odds change accepted • higher - accept only higher odds compare to odds in the initial bet sent to MTS For more information check chapter 6.9 Alternative odds (previously referred to as – "odds change auto acceptance")	
totalCombinations	No	Optional	Integer	Expected total number of generated combinations on this ticket (optional, default null). If present is used to validate against actual number of generated combinations. Check example: 10.11 Two single bets on the same event within one ticket	



Nesting	Mandatory/ Optional	Data type	Description
No	Mandatory	string	3 letter currency code. MTS supports all official currencies, BTC and mBTC. Only in case of mBTC length is 4 characters. For more details please check https://www.iso.org/iso-4217-currency-codes.html
110		Sumg	<u>currency-codes.num</u>
	Relations between distribution channel		Terminal id (optional)", "pattern": "^[0-9AZa-z:-
No	parameters	string]{1,36}\$",
			Communication channel (optional)", "enum": ["internet", "retail", "terminal", "mobile", "phone", "sms",
No	Mandatory	string	"callCentre"]
	Table 6-4 Relations between distribution channel		
No	parameters	string	Identification of physical shop
N	N. I.		Client's id (provided by Sportradar to the client; "maximum": 2147483647,
No	Mandatory	integer	"minimum": 1
N	N 1		Client's limit id (provided by MTS CI or OAM team) from
No		ınteger	where ticket was placed
Table 6-3 endCustomer	Table 6-4 Relations between distribution channel		Identification of the end user
	No No No No Table 6-3	No Mandatory Table 6-4 Relations between distribution channel parameters No Mandatory Table 6-4 Relations between distribution channel No parameters No Mandatory No Mandatory Table 6-4 Relations between distribution channel parameters	No Mandatory string Table 6-4 Relations between distribution channel No parameters string No Mandatory string Table 6-4 Relations between distribution channel No parameters string No Mandatory integer No Mandatory integer Table 6-4 Relations between distribution channel no mandatory integer



Table 6-3 endCustomer object

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
				End user's unique id (in
				Bookmaker's system). It should
		Table 6-4 Relations		be anonymized value which
		between distribution		cannot be used to identify
id	No	channel parameters	string	physical person
		Table 6-4 Relations		
		between distribution		
ip	No	channel parameters	string	End user's IP
		Table 6-4 Relations		
		between distribution		
language	No	channel parameters	string	ISO 639-1 language code
		Table 6-4 Relations		
		between distribution		
deviceId	No	channel parameters	string	End user's device id
				Suggested Customer Confidence
				Factor(CCF) of the customer
				multiplied by 10000 and
confidence	No	Optional	integer	rounded to a long value



Table 6-4 Relations between distribution channel parameters

Distribution channel	Customer is	channel	endCustome r.id	shopId	terminalId	endCustome r.ip	endCustomer. deviceId	endCustomer.l anguage
Internet	registered	mandatory	mandatory	blank	blank	mandatory	optional	mandatory
Mobile	registered	mandatory	mandatory	blank	blank	mandatory	optional	mandatory
SMS	registered	mandatory	mandatory	blank	blank	blank	optional	mandatory
Retail(Shop)	unregistered	mandatory	blank	mandatory	blank	blank	optional	blank
Retail(Shop)	registered	mandatory	mandatory	mandatory	blank	blank	optional	mandatory
Terminals	registered	mandatory	mandatory	optional	mandatory	blank	optional	mandatory
Terminals	unregistered	mandatory	blank	optional	mandatory	blank	optional	blank
Call Center	registered	mandatory	mandatory	optional	optional	optional	optional	optional

Note:

- If bet is placed from mobile device/mobile version of web page then channel should be mobile
- If bet is placed from terminal installed in the shop then channel should be retail and in the bet should be shopID and terminalID

Table 6-5 Selections Array

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
				Betradar event id from UOF;
				E.g.
				• "sr:match:16470657"
				• for outrights: "sr:season:54571" minimum: 1;
				maximum: 9223372036854775807
				Max length: 100
eventId	No	Mandatory	string	
				ID of selection based on UOD IDs
				minLength: 1
				maxLength: 1000
				Detailed specification of this value format you
				can find in 6.3 Selection id in case of UOF
id	No	Mandatory	string	
				Odds multiplied by 10000 and rounded to int
odds	No	Mandatory	integer	value



Table 6-6 Bets Array

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
id	No	Optional	string	Bet id (optional) in multi-bets ticket. If Client send this value then at the end of id should be suffice "_bet_N". Where N is bet number starting from 0. Check example 10.13 Multisystem bets ticket with different stakes
selectedSystems	No	Mandatory	array of integers	Array of all the systems. [0] is not allowed. In case of multiples it should be mentioned number of folds
selectionRefs	Table 6-7 selectionRefs Array	Optional	array	Array of selection references which form the bet (optional, if missing then all selections are used; Default: null
stake	Table 6-8 Stake object	Mandatory	object	Stake of the bet
bonus	Table 6-9 Bonus object	Optional	object	Sport-betting bonus of the bet (optional, default null)

Table 6-7 selectionRefs Array

able 0-7 selectionixels Array						
Parameter name	Nesting	Mandatory/ Optional	Data type	Description		
				"Selection index from		
				'ticket.selections' array (zero		
				based)";		
				maximum": 62;		
selectionIndex	No	Mandatory	integer	minimum": 0		
			Boolean (true or	Flag if selection is banker		
banker	No	Optional	false)	(optional, default false)		

Table 6-8 Stake object

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
				Stake amount in local currency multiplied by 10 000
				and rounded to a long value.
				minimum: 1;
value	No	Mandatory	integer	maximum: 1000000000000000000;
				Type of stake (optional, default total). "enum":
				["total",unit"]
				Clients can choose if they send MTS the unit stake
				(the value for each individual bet within a multiple
				bet of a ticket) or the total stake (the total stake for a
type	No	Optional	string	multiple bet within the ticket).



Table 6-9 Bonus object

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
value	No	Mandatory	integer	Bonus amount which will be added to Win amount in case bet is won. Amount multiplied by 10000 and rounded to a long value. (Local currency)
type	No	Optional	string	Bonus type (optional, default total)
mode	No	Optional	string	Payout mode (optional, default all). Relevant mostly for system bets. All: all bets must win for bonus to be paid out.

Page | 20



6.3 Selection id in case of UOF

Betradar's Unified Odds Feed (UOF) is the next stage in making sport's and eSport's data transmission and service integration even simpler and more comfortable. This new way of data delivery enables customers to access all the data Betradar supports in a fast and consistent manner. The feed works in conjunction with the entire range of our existing betting products: Pre-match Odds Service (PMOS), Live Odds(LO), Premium Cricket, etc. Detailed documentation for UOF you can find here. If you integrated UOF, you would use the following template for parameter selections[i].id in ticket-JSON:

"uof:value1>[&<specifierN=valueN>]*"

Where "product id" is a **producer** in UOF:

- 1 − Live Odds (LO)
- 3 Pre-match Odds Service(PMOS)
- 4 − Betpal
- 5 Premium Cricket

Examples:

SPORT	Human readable market	UOF (incl. selection)	Producer
	name		
Tennis	First set game 1 – correct score	uof:1/sr:sport:5/214/891?setnr=1&gamenr=1	LO
Volleyball	Second set – point handicap	uof:1/sr:sport:23/309/1714?setnr=2&hcp=3.5	LO
Soccer	Handicap	uof:3/sr:sport:1/16/1715?hcp=2	PMOS
Soccer	Double chance and total	"uof:3/sr:sport:1/547/1728?total=1.5"	PMOS
Soccer	1st goalscorer	uof:3/sr:sport:1/38/sr:player:263505?goalnr=1&type=prematch	PMOS
Soccer	Correct score [0:0]	uof:3/sr:sport:1/41/148?score=0:0	PMOS
Basketball	Halftime/fulltime	uof:3/sr:sport:2/47/426	PMOS
Basketball	Total(including overtime)	uof:3/sr:sport:2/225/12?total=214.5	PMOS
Volleybal	How many sets will be decided by extra point	uof:3/sr:sport:23/306/sr:decided_by_extra_points:bestof:5:53?variant=sr:decided_by_extra_points:bestof:5	
Soccer	Outright, Top 4	uof:3/sr:sport:1/536/pre:outcometext:4898?winners=4&variant=pre:markettex t:63824	PMOS
Soccer	Outright, Winner	uof:3/sr:sport:1/534/pre:outcometext:5344132?variant=pre:markettext:59328	PMOS



6.4 Bet Type values

Table 6-10"Bet Types"

Name of bet type	Description	
Single	One selection, one bet ("selectedSystems" : [1], selections count = 1).	
Double	Two selections, one bet ("selectedSystems" : [2], selections count = 2).	
Treble	Three selections, one bet ("selectedSystems" : [3], selections count = 3).	
Accumulator	Four or more selections (also referred to as a fourfold, fivefold, sixfold etc.); maximum number of selections is capped at 63. No matter how many selections in an accumulator it is still always counted as one bet ("selectedSystems" : [<number folds="" of="">], selections count = selections count).</number>	
Trixie	Three selections, consisting of 4 separate bets: 3 doubles and a treble ("selectedSystems": [2,3], selections count = 3).	
Yankee	Four selections, consisting of 11 separate bets: 6 doubles, 4 trebles and a fourfold accumulator ("selectedSystems": [2,3,4], selections count = 4).	
Canadian or Super Yankee	Five selections, consisting of 26 separate bets: 10 doubles, 10 trebles, 5 four-folds and a five-fold accumulator ("selectedSystems": [2,3,4,5], selections count = 5).	
Heinz	Six selections, consisting of 57 separate bets: 15 doubles, 20 trebles, 15 four-folds, 6 five-folds and a six-fold accumulator ("selectedSystems": [2,3,4,5,6], selections count = 6).	
Super Heinz	Seven selections, consisting of 120 separate bets: 21 doubles, 35 trebles, 35 four-folds, 21 five-folds, 7 six-folds and a seven-fold accumulator ("selectedSystems": [2,3,4,5,6,7], selections count = 7).	
Goliath	Eight selections, consisting of 247 separate bets: 28 doubles, 56 trebles, 70 four-folds, 56 five-folds, 28 six-folds, 8 seven-folds and an eightfold accumulator ("selectedSystems": [2,3,4,5,6,7,8], selections count = 8).	
Patent	Three selections, consisting of 7 separate bets: 3 singles, 3 doubles and a treble. Equivalent to a Trixie plus 3 singles ("selectedSystems": [1,2,3], selections count = 3).	
Lucky 15	Four selections, consisting of 15 separate bets: 4 singles, 6 doubles, 4 trebles and a four-fold accumulator. Equivalent to a Yankee plus 4 singles ("selectedSystems": [1,2,3,4], selections count = 4).	
Lucky 31	Five selections, consisting of 31 separate bets: 5 singles, 10 doubles, 10 trebles, 5 four-folds and a five-fold accumulator. Equivalent to a Canadian plus 5 singles ("selectedSystems": [1,2,3,4,5], selections count = 5).	
Lucky 63	Six selections, consisting of 63 separate bets: 6 singles, 15 doubles, 20 trebles, 15 four-	



	folds, 6 five-folds and a six-fold accumulator. Equivalent to a Heinz plus 6 singles ("selectedSystems": [1,2,3,4,5,6], selections count = 6).
System Bet	System bets consist of various combinations of separate bets based on the total number of selections and the number of selections in each combination. The customer must pick a minimum of 1 selection and a maximum of 30 and then chose the number of selections they want in each combination (separate bet) ("selectedSystems": [X] (X <selections count="selections" count),="" count).<="" selections="" td=""></selections>
System Bet with Banker(s)	System bets placed with banker(s) in which the banker selection(s) is included in every separate bet (combination) of the system bet, and is required to win to provide the customer with any return.
System Bet with Ways	System bets placed with ways gives the option to include several selections from the same market as part of a system bet. The ways part of the bet refers to the market that has more than one selection included.

Note: MTS has the following limitations:

- MTS supports accumulators up to 63 folds(legs)
- MTS supports system bets with max 20 000 combinations or/and 30 legs.
- MTS Supports maximum 50 bets within single JSON-ticket



6.5 Ticket response

Ticket response is a mandatory part of the ticket acceptance process where the ticket response from Betradar advises whether the ticket can be accepted or not. This is sent within 1 second or less (not considering a live-bet delay that can be configured - currently the live time delay is 7 seconds). The response then specifies if the ticket(s) was accepted or not.

For better understanding it is strongly recommended to check examples on:

- Ticket acceptances: 10 Appendix A: Valid Tickets
- Ticket rejections: 11 Appendix B Invalid Tickets
- Bet re-offer examples: 10.17 Bet re-offer accepted by MTS example and 10.18 Bet re-offer rejected by MTS example.

In addition to examples Ticket acceptance/rejection response JSON schema is added to chapter 5.2 Ticket acceptance response JSON schema 2.2.

General ticket acceptance/rejection response is following:

Table 6-11 Ticket acceptance/rejection response

Table 0-11 Ticket acce	ptance/rejection response	ı	1	
Parameter name	Nesting	Mandatory/ Optional	Data type	Description
				JSON format version
				(Currently must be
version	No	Mandatory	string	'2.2')
				Response signature
				(previous
signature	No	Mandatory	string	betAcceptanceId)
	Table 6-12 Ticket			
result	response.result	Mandatory	object	
				Array which contains
	Table 6-20 ticket			odds auto-acceptance
autoAcceptedOdds	response.autoAcceptedOdds	Optional	object	information
				The exchange rate
				used when converting
				currencies to EUR.
				Double multiplied by
				10000 and rounded to
exchangeRate	No	Mandatory	integer	a long value

Table 6-12 Ticket response.result

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
	N	0 : 1		External ticket id which was sent by
ticketId	No	Optional	string	Bookmaker to MTS
				Acceptance status. enum:
				• "accepted"
status	No	Mandatory	string	• "rejected"
	Table 6-13 Ticket			Object carrying information about
reason	response.reason	Mandatory	object	rejection cause
				Bet-level rejection details. In case
	Table 6-14 Ticket			ticket is accepted value is
betDetails	response.betDetail	Optional	array	""betDetails" : []"



Table 6-13 Ticket response.reason

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
Code	No	Optional	integer	rejection/acceptance code
message	No	Optional	string	Rejection reason description

Table 6-14 Ticket response.betDetail

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
Items	Table 6-15 Ticket response.items	Optional	object	Reason on bet level

Table 6-15 Ticket response items

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
	Table 6-16 Ticket			
selectionDetails	response.selectionDetails		object	Per-selection rejection reasons
	Table 6-13 Ticket			Object carrying information about
reason	response.reason	Mandatory	object	rejection cause
betId	No	Mandatory	string	Particular Bet id
	Table 6-19 ticket			Bet reoffer details, mutually
reoffer	response.reoffer	Optional	object	exclusive with alternativeStake
	Table 6-18 Ticket			Alternative stake, mutually
alternativeStake	response.alternativeStake	Optional	object	exclusive with reoffer

Table 6-16 Ticket response.selectionDetails

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
				Selection index
				from
				'ticket.selections'
				array. Enumeration
selectionIndex	No		integer	starts from zero
				Object carrying
				information about
reason	Table 6-13 Ticket response.reason		object	rejection cause
				Rejection
	Table 6-17 Ticket			information on
rejectionInfo	response.selectionDetails.rejectionInfo		object	selection level



 $Table\ 6\text{-}17\ Ticket\ response.} selection Details.rejection Info$

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
eventId	No		string	Rejected selection's related
				Betradar event (match or outright)
				id.
				"minLength": 1,
				"maxLength": 100
id	No		string	Rejected selection's related
				Selection id
odds	No		integer	Rejected selection's related Odds
				multiplied by 10 000.

Table 6-18 Ticket response.alternativeStake

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
stake	no	Mandatory	integer	Alternative stake. Double multiplied by 10 000 and rounded to a long value"; maximum:1000000000000000000; minimum: 1

Table 6-19 ticket response.reoffer

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
type	No	Mandatory	string	Reoffer type, if auto then stake will be present. If manual you should wait for reoffer stake over Reply channel; "enum": "auto"; "manual".
stake	No	Optional	integer	Reoffer stake. Double multiplied by 10000 and rounded to a long value

Page | 26



 $\underline{\textbf{Table 6-20 ticket response.auto}} \textbf{AcceptedOdds}$

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
				Selection index from 'ticket.selections' array.
selectionIndex	no		integer	Enumeration starts from zero
				Odds with which the ticket was placed
requestedOdds	no		integer	multiplied by 10 000
				Odds with which the ticket was accepted
usedOdds	no		integer	multiplied by 10 000



6.6 Alternative Stake

If a bet is rejected due to exceeded liability limits, MTS gives the end customer the chance of requesting the bet again with a lower stake which would have more chance of being accepted.

After the first rejection, MTS sends, together with the reply, an alternative stake value.

The bookmaker can then offer the end customer the chance of requesting the same bet with the alternative stake.

Note: Alternative stake is available for live and pre-match betting.

Note: MTS can have enabled either alternative stake functionality for live and pre-match or bet re-offer for prematch. For further details please contact MTS OAM team.

The alternative stake does not reserve liability; therefore, if the aggregated liability amount increases before the end customer accepts to place the bet with the Alternative Stake, the ticket might be rejected again.

High level flow:

- 1) Ticket is sent from operator to MTS
- 2) Ticket gets rejected due to exceeded liability
- 3) Rejection message is sent to the bookmaker and contains the Alternative Stake offer in the currency of the initial bet and an ID in order to identify the rejected ticket.
- 4) The new ticket placed with the Alternative Stake must contain the ID of the previous ticket rejected for liability reasons (see (3)).

Note: By default, the alternative stake functionality is disabled on the MTS side. If you would like it to be activated, please contact the MTS OAM team.

6.7 Bet re-offer for pre-match

In order to achieve the lowest possible rejection rate, the alternative stake feature has been enhanced and incorporated into the bet re-offer for pre-match betting. Just as in the case of alternative stake, if liability limits are breached, the alternative stake value is sent to the customer together with the rejection response, but the liability is reserved for a certain time frame arranged with the bookmaker (basically the time for the end customer to decide whether to accept the re-offer or not).

Note: MTS can have enabled either alternative stake functionality for live and pre-match or bet re-offer for prematch. For further details please contact MTS OAM team.

If the end customer accepts the re-offer, the bet will be guaranteed acceptance as the liability for the bet will have been reserved in case status of selections in the bet is not changed.

Hence, a higher number of bets will be accepted and the end customer will not be disappointed by a second rejection.

Bet re-offer works in the following cases:

- Bet re-offer is triggered for the following rejection codes: -701, -702, -703, -511
- Only pre-match bets (not for the live bets)
- Bet types: Singles, Multiples(accumulators)
- For the time being, MTS is not offering bet re-offer for the tickets which contain several bets

Note: Bet re-offer is available only for pre-match betting. It is not available for live betting.

Note: By default, the bet re-offer functionality is disabled on the MTS side. If you would like it to be activated, please contact the MTS OAM team.

6.8 Technical specification

2 new parameters have been added to Ticket 2.X:



- **ticket.reofferRefId** ID of re-offered ticket
- ticket.bets[i].reofferRefId ID of re-offered bet

Example of bet re-offer communication is here: 10.17 Bet re-offer accepted by MTS example and 10.18 Bet re-offer rejected by MTS example.

Ticket acceptance/rejection JSON 2.2 parameters are mentioned in Table 6-19 ticket response.reoffer.

6.9 Alternative odds (previously referred to as – "odds change auto acceptance")

For sportsbetting platforms which allow the end customer to confirm their consent to accept odds changes occurring during the bet placement process, MTS offers the possibility to accept incoming ticket requests regardless of an odds change. There are three possible options which MTS supports. These options are configurable per ticket via parameter **oddsChange**:

- none no odds change accepted (default)
- any any odds change accepted
- higher accept only higher odds compare to odds in the initial bet sent to MTS

In reply MTS will send accepted odds in object autoAcceptedOdds. E.g

```
"autoAcceptedOdds" : [
{
    "selectionIndex": 1,
    "requestedOdds": 10100,
    "usedOdds": 10200
}
```

Note: This functionality is available only for UOF clients. By default it is disabled on MTS side. To enable it, MTS Client needs to contact MTS Operational Account Manager(OAM).

6.9.1 Ticket acceptance flow in case of alternative odds

None: With "none" in the oddsChange field or not flagged so MTS has assigned "none" as default

- Tickets will be rejected, if the current bookmaker odds are different to the odds received in the ticket.
 In this case the ticket will be rejected with code -430 "Odds sent in Ticket Different to Bookmakers Current Odds" will be sent: (e.g. ticket#77777 Odds are different to current Bookmaker Odds for this selection (Soccer, Belgium, Beloften Pro League, Group A, KAA GENT LIERSE SK, 3way , LIERSE SK)!
- If there was no change to the bookmaker's odds during the validation process, validation will be run as normal and against the bookmaker's odds.

Any: With "any" in the oddsChange field

- If there was any change to the bookmaker's odds during the validation process, the odds in the ticket WILL BE changed, the bookmaker's new/current odds will replace the odds that were received at the time of ticket placement. All other checks will run as normal.
 For Multiples, if there was any change to the bookmaker's odds for one or more of the selections during the validation process, the odds in the ticket will be changed. The bookmaker's new odds will replace the odds that were received at the time of ticket placement for those selections. All other checks will run as normal. In this case, reply to ticket acceptance request will contain "autoAcceptedOdds" object with three fields: "selectionIndex", "requestedOdds" and "usedOdds".
- If there was no change to the bookmaker's odds during the validation process, then there will be no change to the odds in the ticket and validation will run as normal and against the bookmaker's odds.

Example is mentioned in 10.21 Bet with enabled alternative odds

Higher: With "higher" in the oddsChange field

- If there was a change to the bookmaker's odds where the odds got higher during the validation process, the odds in the ticket will be changed. The bookmaker's current odds will replace the odds that were received at the time of ticket placement. All other checks run as normal.
- For Singles/Multiples, If there was a change to the bookmakers odds for one or more of the selections where the odds got lower during the validation process, then the bet will be rejected with code -431 "Odds sent in Ticket Higher than Bookmakers Current Odds": (e.g.ticket#77777 has higher Odds than

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Bookmaker Odds for this selection (Soccer, Belgium, Beloften Pro League, Group A, KAA GENT - LIERSE SK, 3way, LIERSE SK)!

If there was no change to the bookmakers odds during the validation process, then there will be no change
to the odds in the ticket and validation will run as normal and against the bookmakers odds.

6.10 Ticket cancellation

Within the Betting industry it is sometimes necessary for a bookmaker/punter to cancel a bet. This can happen due to various scenarios, but in all cases MTS will need to be sent a cancellation request so that records between the bookmaker and MTS are aligned. Within MTS we have a pre-defined list of acceptable reasons for bet cancellations that are supported.

During integration, the OAM team will identify the required cancellation types and activate them for the client (including setting various configuration options). For any cancellation scenarios not listed please also contact OAM as these may be added but may require agreement between Sportradar and the client.

Each supported cancellation has a specific code and a corresponding reason message (please see table below).

Table 6-21 Cancellation options

Reason Code	Reason Message				
101	Customer triggered Pre-match bet cancellation				
102	Time Out triggered bet cancellation				
103	Bookmaker Backoffice triggered bet cancellation				
104	Bookmaker Technical issue triggered bet cancellation				
105	Exceptional bookmaker triggered bet cancellation				
301	Bet cancellation triggered by SOGEI (applicable for Italian jurisdictions)				
302	Bet cancellation triggered by SCCS (applicable for Belorussian jurisdictions)				

Customer triggered Pre-match bet cancellation (cancellation code 101)

Should be used to request a bet cancellation when a punter has cancelled a Pre-Match bet.

Time Out triggered bet cancellation (cancellation code 102)

Should be used to request a bet cancellation if a ticket response was not received by the client from the MTS service within a specific amount of time (suggest time period = 15 seconds).

Bookmaker Back office triggered bet cancellation (cancellation code 103)

Should be used if a ticket was sent with incorrect information (manual error for example - wrong selection / odds / stake / account number etc) and the bet needs to be cancelled and then re sent with correct information.

Bookmaker Technical issue triggered bet cancellation (cancellation code 104)

Should be used if a client encounters technical difficulties on their side and needs to cancel bets after the technical issue has been resolved.

Exceptional circumstances bookmaker triggered bet cancellation (cancellation code 105)

There can be other unforeseen occasions where cancellations may need to be requested (other than the above for mentioned cancellations). In these instances, this cancellation code should be used.

Bet cancellation triggered by SOGEI (cancellation code 301)

Should be used to inform MTS of cancellations triggered by SOGEI.

Bet cancellation triggered by SCCS (cancellation code 302)

Should be used to inform MTS of cancellations triggered by SCCS.



6.10.1 Ticket cancellation request

To cancel a specific ticket, the following message needs to be sent to MTS (check example in 12.1 Cancellation request):

Table 6-22 Ticket cancellation

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
	Table 6-23 Ticket			
cancel	cancellation.cancel	Mandatory	object	

Table 6-23 Ticket cancellation.cancel

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
timestampUtc	No	Mandatory	integer	Timestamp of ticket cancel placement (in UNIX time millis), "minimum": 1, "maximum": 9223372036854775807
ticketId	No	Mandatory	string	Ticket id to cancel (in the client's system)
sender	Table 6-24 Ticket cancellation.sender	Mandatory	object	
code	No	Mandatory	integer	Cancellation code
version	No	Mandatory	string	JSON format version (currently is '2.2')

Table 6-24 Ticket cancellation.sender

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
bookmakerId	No	Mandatory	integer	Betradar's Bookmaker ID



6.10.2 Response for ticket cancellation

Table 6-25 Ticket cancellation response

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
version		Mandatory	string	JSON format version (currently is 2.2)
signature		Mandatory	string	MAC Response signature (previous betAcceptanceId)
result	Table 6-26 Ticket cancellation response.result	Mandatory	object	

Table 6-26 Ticket cancellation response.result

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
				Cancellation status - cancelled,
status	No	Mandatory	string	not cancelled
	Table 6-27 Ticket cancellation			
reason	response.reason	Mandatory	object	
ticketId	No	Optional	string	Ticket id

Table 6-27 Ticket cancellation response.reason

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
code	No	Mandatory	integer	Cancellation code(s) which are mentioned in Table 6-28 Ticket Cancellation Response Codes
message	No	Optional	string	Cancellation rejection reason description



Table 6-28 Ticket Cancellation Response Codes

Code	Description
1024	Ticket Cancellation accepted
-2010	Ticket not found
-2011	Inconsistent ticket bookmaker Code
-2012	Ticket contains live selections
-2013	Ticket time for cancellation expired
-2015	Cannot be cancelled because it contains pre-match selection
-2016	Cannot be cancelled because particular cancellation option is not active
-2017	Cannot be cancelled because ticket is already settled
-2018	Cannot be cancelled because ticket is already cancelled
-999	Generic exception code



6.11 Cash Out

The Cash Out feature allows operators to offer end customer's an opportunity to lock in a profit before a bets result is actually known. Basically Cash Out is where an operator can offer the end customer a payout for a bet before the outcome of the bet is known. The actual Cash Out value must be calculated by the client but Sportradar does offer the UOF probability service to help client calculate such Cash Out values.

In order to offer MTS Clients with Cash Out's Sportradar currently offers two services:

1. UOF Probability. The UOF Probability service is part of the Unified feeds and provides probabilities for live selections that are not closed/settled. UOF contains the current probabilities, however, there will be instances where lines (SOV's) have changed, and in these case's Sportradar does not send any probabilities in the feed for the original Special Odds Value (SOV) as it has been changed. In such cases Sportradar clients can use the UOF Probability service to retrieve probabilities.

More information you can find in UOF documentation, chapter "Probabilities and cashout endpoints"

2. MTS Cash Out protocol, which allows the Operator to inform MTS about already processed Cash Out's for Pre-Match and Live tickets - singles, multiples (accumulator) and system bets.

Clients can choose to use the UOF probability service to help calculate Cash Out values or calculate them themselves but either way they need to use the MTS Cash Out Protocol to inform MTS of all Cash Out's. In respect of MTS, MTS is not providing risk management for the Cash Out's. The Operator is simply informing MTS about already cashed out bets. In this case, liabilities will be recalculated accordantly to the received information of the Cash Out's. The receipt of Cash Out information does not have an immediate effect on invoicing for the MTS services between Sportradar and the Operator.

Note: MTS cannot be used to validate and verify Cash Out amount before offering it to end customer.

Note: By default, the Cash Out functionality is disabled on the MTS side. If your platform supports Cash Out and you need the Cash out receipt activated in MTS, please contact the MTS OAM team.

Note: MTS only currently handles full ticket Cash Out's and not partial Cash Out's.

6.11.1 Cash Out flow

From a procedures perspective, the Cash Out flow is slightly different to the bet cancellation flow. Before accepting the ticket cancellation, the Operator will send the appropriate ticket cancellation request to MTS. Only if the ticket cancellation request is accepted by MTS, the Operator can finalize the bet cancellation transaction. In the case of Cash Out, the Operator sends the appropriate message to MTS after the Cash Out offer is accepted by the punter and payed out (post-factum).

- 1. Operator offers Cash Out to end customer
 - a. For Live betting Betradar offers probabilities (check chapter "Probabilities and cashout endpoints" in UOF documentation)
- 2. End Customer accepts Cash Out offer
- 3. Operator finalizes Cash Out and sends appropriate request to MTS
- 4. If MTS accepts the ticket Cash Out request, the flow is then complete.
- 5. If MTS declines the ticket Cash Out request, the Operator will need to contact the OAM in this instance.

6.11.2 Ticket Cash Out request

Examples of Cash Out communication are mentioned in 10.19 Cashout request accepted by MTS and 10.20 Cashout request declined by MTS.



MTS can receive Cash Out requests regarding Cash Outs of Live and Pre-match bets as well as for singles, multiples and system bets. A Cash Out message will be accepted by MTS only if the following conditions are met:

- Events must be managed by MTS from a risk management perspective
- Ticket Cash Out value is equal to or less than the current ticket value (Ticket Total Stake * Current Probability
 * Ticket Total Odds)
 - o Ticket Total Stake Stake amount in the original ticket
 - o Current Probability Total probability for the moment of Cash Out
 - Ticket Total Odds Total odds in the original ticket

After the Cash Out request is accepted by MTS, liabilities from that particular ticket will be removed.

6.11.3 Cash Out request format

Table 6-29 Ticket Cancellation request

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
ticketId	No	Mandatory	integer	Ticket id which was Cashed Out
sender	Table 6-30 Ticket Cash Out request sender	Mandatory	object	
cashoutStake	No	Mandatory	integer	Cash Out stake in the same currency as original ticket. Quantity multiplied by 10000 and rounded to a long value
version	No	Mandatory	string	JSON format version (currently '2.2')
timestampUtc	No	Mandatory	integer	Timestamp of ticket Cash Out placement (in UNIX time millis)

Table 6-30 Ticket Cash Out request sender

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
bookmakerId	No	Mandatory	integer	Betradar bookmaker ID

6.11.4 Ticket Cash Out response

Table 6-31 Ticket Cash Out response

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
version		Mandatory	string	JSON format version (currently is '2.2')
signature		Mandatory	string	MAC Response signature (previous betAcceptanceId)
result	Table 6-32 Ticket Cash Out response results	Mandatory	object	



Table 6-32 Ticket Cash Out response results

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
status	No	Mandatory	string	Cancellation status - cancelled, not cancelled
reason		Mandatory	object	
ticketId	No	Mandatory	string	Ticket id

Table 6-33 Ticket Cash Out response Codes

Code	Description	
1024	Cash Out accepted	
-101	Bookmaker not found	
-102	Cash Out disabled for particular bookmaker ID or Limit ID	
-103	Ticket not found	
-104	Ticket rejected	
-201	Ticket version lower than 2.0	
-202	Ticket contains selection on un-managed event by MTS	•
-204	Cash Out amount is too high	



7 Sportbetting Bonus

For operators offering a sports-betting bonus to their end customers (end customer receiving a % uplift on the winning amount depending on the number of selections in a multi bet) this bonus information shall be included in the ticket sent to the MTS-system as additional information in the ticket data.

If such a bonus is offered, the bonus winning amount must be included in the field "bets[i].bonus.value". "bets[i].bonus.value" and have the same field type and dimension as the field "bets[i].stake.value".

An example can be found in section: 10.12 4-Fold Accumulator with 80 Cents Sport-betting bonus.

The bonus value information does not directly affect liability and risk validation parameters, but is used by the MTS Trading Department and the MTS system in the continuous ticket monitoring to detect betting pattern variations which could be driven by bonus playing motivation by punters.

Note: MTS support only this type of bonuses. Free bets or bets based on promotion credits are considered as bets based on real money as they are creating same level of risks as bets on real money.



8 Ticket acceptance and Ticket cancellation acknowledgement

By default, client using the MTS service should follow the MTS bet acceptance suggestions and responses to ensure the correctness of the liability validations.

The MTS service assumes acknowledgment of the ticket per default for acceptance or rejection.

Where agreed and set up during the integration process, bet cancellation requests can be sent by the client to the MTS service for selected business scenarios.

This results in the following 3 main transaction flows:

- Bet is accepted by MTS service, same bet is accepted on client side
- Bet is rejected by MTS service, same bet is rejected on client side
- Bet cancellation request is acknowledged by MTS service, cancellation for same bet is completed on client side (where bet cancellations have been defined and enabled for client)

A deviation to the above standard flows (where the client cannot process the MTS response as expected) should be treated as an exception and requires a Non-Acknowledgement message to be sent to the MTS service. This short message must contain Timestamp, SR Ticket ID and a value referring to Non-Acknowledgment Status.

Below you will find the format description for bet acceptance and cancellation acknowledgement messages.

Please note that acknowledgment messages are expected to be received in a predefined period to be processed by the MTS service. (Default acceptance period is 10 seconds)

Please contact the MTS Client Integration team if non-acknowledgments are required and in case the default acceptance period is not sufficient.

Examples can be found in section: 10.15 Ticket acknowledgment: Rejected ticket by MTS but accepted by Bookmaker

Table 8-1 Ticket acceptance acknowledgement

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
sender	Table 8-2 Ticket acceptance acknowledgement.sender	Mandatory	object	
ticketId	No	Mandatory	string	
ticketStatus	No	Mandatory	string	enum: accepted; rejected
timestampUtc	No	Mandatory	integer	
version	No	Mandatory	string	
				Placeholder for future functionality. Any positive integer value can be used
code	No	Optional	integer	as dummy value.
message	No	Optional	string	

Table 8-2 Ticket acceptance acknowledgement.sender

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
bookmakerId	no	Optional	integer	



8.1 Ticket cancellation acknowledgement

Table 8-3 Ticket cancellation acknowledgment

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
sender	>	Mandatory	object	
ticketId	No	Mandatory	string	
ticketCancelStatus	No	Mandatory	string	enum: cancelled; not cancelled
timestampUtc	No	Mandatory	integer	
version	No	Mandatory	string	
code	No	Optional	integer	
message	No	Optinal	string	

Table 8-4 Ticket cancellation acknowledgment.sender

Parameter name	Nesting	Mandatory/ Optional	Data type	Description
bookmakerId	no	Optional	integer	



9 Exchange Rates

The system currency of the MTS-service is Euro.

The MTS service uses the service **OpenExchange** (https://openexchangerates.org) as the exchange rate source to convert ticket values in non-EUR currencies to EUR. Rates are updated every full hour.

Rates are applied in the following way:

- Rates are applied using 6 decimals after comma.
- On ticket level the rate at bet acceptance time is applied for stake calculation in EUR.
- Winnings values are calculated based on the converted EUR values for stakes at bet acceptance time.



10 Appendix A: Valid Tickets

10.1 Ticket with Live single bet with 3-Way market

Ticket placed from **mobile device** with single bet on **Live event** (Soccer -> International Clubs -> Club Friendly Games -> NEC Nijmegen VS ADO Den Haag) event (Event ID: **sr:match:16470657**), **Correct score(1:1)** outcome. Stake amount is **12.00 Danish Krone**. Bet was placed from Sportsbook interface in **Spanish**.

bet was placed from Sportsbook interface in
UNIX timestamp in UTC
Stake 12.00 multiplied by 10 000
Single bet
EventID as it comes from UOF
Market URL based on UOF IDs
Odds value 7.1 multiplied by 10 000
Danish Krone currency identifier
Bet was placed from a mobile device
Bet was placed from Spanish interface





10.2 Pre-match Single bet Ticket

Ticket with single bet on **Pre-match** (Basketball -> Germany-> Pro A -> Arland Dragons vs Ehingent) (Event ID: **sr:match:15050881**), "3way" market, "**Home**" outcome. Bet was placed from online/ desktop web page(**Online** distribution channel) in **USD** from **English** interface.

```
"timestampUtc": 1545044372354,
 "bets" : [ {
  "stake" : {
    "value" : 20000,
    "type" : "total"
  },
"id": "TicketGenerator_20181217105932_3672_0",
  "selectedSystems":[1]
 } ],
 "ticketId" : "TicketGenerator_20181217105932_3672",
 "selections" : [ {
  "eventId": "sr:match:15050881",
  "id": "uof:3/sr:sport:2/1/1",
  "odds": 12300
 } ],
  "sender" : {
  "currency": "USD",
  "channel": "internet",
  "bookmakerld": 9985.
  "endCustomer": {
    "ip": "212.7.5.21",
    "languageld": "EN",
    "id": "user_3454"
  "limitId" : 1409
 },
 "version": "2.2",
 "oddsChange" : "any"
}
Response:
 "result": {
  "ticketId": "TicketGenerator_20181217105932_3672",
  "status": "accepted",
  "reason": {
    "code": 1024,
    "message": "Ticket accepted"
  "betDetails":[]
 },
 "version": "2.2".
 "signature": "pkXihFOxYRprL2HOF6rYCy5/wyPT/IVSY0iF83c0YxE=",
 "exchangeRate": 11329
```



10.3 Double Pre-match

Ticket with double bet on two **pre-match** selections:

- 1. Ice Hockey -> USA -> NHL -> Outright- > Tampa Bay Lightning (Event ID: sr:season:54837)
- 2. Soccer -> Portugal -> Segunda Liga -> Handicap 1:0 -> Draw (Event ID: sr:match:14950205)

Bet type is defined by values in "selectedSystems" array. Value 2 means that two selections should be settled as Won to settle entire bet as Won.

```
"timestampUtc": 1545044012850,
 "bets" : [ {
  "stake" : {
   "value" : 10000,
   "type" : "total"
  },
"id": "ticket_example_20181217105332_3668_0",
  "selectedSystems" : [ 2 ]
 }],
 "ticketId": "ticket_example_20181217105332_3668",
 "selections" : [ {
  "eventId": "sr:season:54837",
  "id": "uof:3/sr:sport:4/534/pre:outcometext:9826?variant=pre:markettext:62723",
  "odds": 13600
 }, {
  "eventId": "sr:match:14950205".
  "id": "uof:3/sr:sport:1/14/1712?hcp=1:0",
  "odds": 40000
 }],
 'sender" : {
  "currency": "mBTC",
  "channel": "internet",
  "bookmakerld": 9985,
  "endCustomer": {
   "ip": "127.0.0.1"
   "languageId": "EN",
   "id": "endCustomer_384d54"
  "limitId": 1409
 "version": "2.2",
 "oddsChange": "any"
Response:
 "result" : {
  "ticketId": "ticket example 20181217105332 3668",
  "status": "accepted",
  "reason" : {
   "code": 1024.
   "message": "Ticket accepted"
  "betDetails" : []
 },
 "version" : "2.2",
 "signature": "gbWLTyawNEgPTqJEVPE5bolCwKrV4+i9yQS9/erMUm4=",
 "exchangeRate": 3482
```



10.4 Treble on Pre-match and Live

In object "selections" are noted 3 selections:

- 1. 2 selections from UOF producer number 3 (pre-match odds UOF producer):
 - o uof:3/sr:sport:2/223/1715?hcp=1.5 with odds 1.10 multiplied by 10 000
 - uof:3/sr:sport:4/534/pre:outcometext:9919?variant=pre:markettext:60279 with odds
 6.32 multiplied by 10 000
- 2. 1 selection from UOF producer number 1 (Live odds UOF producer)
 - o uof:1/sr:sport:1/1/2 with odds value 14.8 multiplied by 10000
- 3. Object "selectedSystems" has value 3 which means three selections should win to trigger entire bet is Won

```
"timestampUtc": 1545045779577,
"bets" : [ {
 "stake" : {
    "value" : 2500000,
  "type": "total"
 },
"id": "TicketGenerator_20181217112257_3688_0",
 "selectedSystems" : [ 3 ]
}],
"ticketId": "TicketGenerator_20181217112257_3688",
"selections" : [ {
 "eventId": "sr:match:14938771".
 "id": "uof:3/sr:sport:2/223/1715?hcp=1.5",
 "odds": 11000
}, {
 "eventId": "sr:match:15163591",
 "id": "uof:1/sr:sport:1/1/2",
 "odds": 148000
 "eventId": "sr:season:55413",
 "id": "uof:3/sr:sport:4/534/pre:outcometext:9919?variant=pre:markettext:60279",
 "odds": 63200
} ],
'sender" : {
 "currency": "CZK", "channel": "retail",
 "shopId": "shop_789135",
 "bookmakerld": 9985,
 "endCustomer": {
  "languageId": "EN"
 "limitId": 1409
},
"version": "2.2",
"oddsChange": "any"
```



10.5 System 3 / 4

In the example below, in object "selections" are noted with four selections:

- 4. uof:3/sr:sport:1/1/3
- 5. uof:3/sr:sport:1/818/1849?total=1.5
- 6. uof:3/sr:sport:1/552/1747
- 7. uof:3/sr:sport:1/552/1747

Object "selectedSystems" has value 3 which defines that at least any of three selections from above four selections should be settled as Won to settle bet as Won. In current example, system bet 3/4 contains 4 combinations. Each combination is permutation of 3 selections from above 4 selections.

```
"timestampUtc": 1545047547904,
"bets" : [ {
 "stake" : {
    "value" : 80000,
  "type": "total"
 "id": "TicketGenerator_20181217115227_7_0",
 "selectedSystems":[3]
"ticketId": "TicketGenerator_20181217115227_7",
"selections" : [ {
 "eventId": "sr:match:16498811",
 "id": "uof:3/sr:sport:1/1/3",
 "odds": 12100
}, {
 "eventId": "sr:match:14741989",
 "id": "uof:3/sr:sport:1/818/1849?total=1.5",
 "odds": 84600
 "eventId": "sr:match:14745109",
 "id": "uof:3/sr:sport:1/552/1747",
 "odds": 12500
}, {
 "eventId": "sr:match:15324498",
 "id": "uof:3/sr:sport:1/105/3?from=1&to=10",
 "odds": 106200
"sender" : {
 "currency": "EUR",
 "channel": "internet",
 "bookmakerld": 9985,
 "endCustomer": {
  "ip": "127.0.0.1",
  "languageId": "EN",
  "id": "7864545"
 "limitId": 935
"version": "2.2",
"oddsChange": "any"
```



10.6 SYSTEM 3 / 4 including 1 Banker

In the example below, bet contains

- 1. 4 selections:
 - o uof:3/sr:sport:1/18/13?total=3.5
 - o uof:3/sr:sport:2/225/13?total=217.5
 - o uof:3/sr:sport:2/303/1715?hcp=-0.5&guarternr=4
 - o uof:3/sr:sport:1/37/800?total=2.5
- 2. Object "selectionRefs" contains references for all four selections mentioned above. Enumerations starts from zero. It means that all 4 selections in bet TicketGenerator_20181217115422_8_0 are selected
- 3. Object "selectedSystems" has value 3 which means at least three selections should be settled as Won to settle bet as Won
- 4. Object "banker" in the second selection has value **true** which defines that second selection uof:3/sr:sport:2/225/13?total=217.5 should be presented in all combinations. In current example combination is permutation of 3 selections from 4 selections.

```
"timestampUtc": 1545047662269,
"bets" : [ {
 "stake" : {
  "value": 80000,
  "type": "total"
 },
 "id": "TicketGenerator_20181217115422_8_0",
 "selectedSystems": [3].
 "selectionRefs":[{
  "selectionIndex": 0,
  "banker" : false
 }, {
   "selectionIndex": 1,
  "banker": true
 }, {
   "selectionIndex": 2,
  "banker" : false
 }, {
   "selectionIndex": 3,
  "banker": false
 }]
} ],
"ticketId": "TicketGenerator_20181217115422_8",
"selections" : [ {
 "eventId": "sr:match:15036157",
 "id": "uof:3/sr:sport:1/18/13?total=3.5",
 "odds": 10900
 "eventId": "sr:match:15331484".
 "id": "uof:3/sr:sport:2/225/13?total=217.5",
 "odds": 20800
 "eventId": "sr:match:16484523",
 "id": "uof:3/sr:sport:2/303/1715?hcp=-0.5&guarternr=4",
 "odds": 15600
  "eventId": "sr:match:14824675",
 "id": "uof:3/sr:sport:1/37/800?total=2.5",
 "odds": 188200
} ],
 sender":{
```



```
"currency": "EUR",
"channel": "internet",
"bookmakerId": 9985,
"endCustomer": {
    "ip": "127.0.0.1",
    "languageId": "EN",
    "id": "7864545"
},
    "limitId": 935
},
"version": "2.2",
"oddsChange": "any"
}
```

10.7 System 3 / 5 incl 1 Ways

In the example below, shows a system bet 3/5 including selections from the same market and same event(sr:match:15197779). While bet validation MTS will split initial bet into combinations in a way that at the same combination there will not be sections from the same event. In current case below bet contains 7 combinations of trebles with unit stake distributed equally between all combinations.

```
"timestampUtc": 1545047887463,
"bets" : [ {
 "stake" : {
  "value" : 80000.
  "type" : "total"
 "id": "TicketGenerator 20181217115807 10 0",
 "selectedSystems":[3]
"ticketId": "TicketGenerator_20181217115807_10",
"selections" : [ {
    "eventId" : "sr:match:15197779",
 "id": "uof:3/sr:sport:1/1/3",
 "odds": 30000
}, {
 "eventId": "sr:match:15197779",
 "id": "uof:3/sr:sport:1/1/2",
 "odds": 24800
 "eventId": "sr:match:14977307",
 "id": "uof:3/sr:sport:1/46/356",
 "odds": 703200
 "eventId": "sr:match:16384796".
 "id": "uof:3/sr:sport:2/236/12?total=36.5&guarternr=1",
 "odds": 16100
 "eventId": "sr:match:14887173",
 "id": "uof:3/sr:sport:1/1/1",
 "odds": 20800
 sender" : {
 "currency" : "EUR",
"channel" : "internet",
 "bookmakerld": 9985,
 "endCustomer": {
```



```
"ip" : "127.0.0.1",
    "languageld" : "EN",
    "id" : "7864545"
    },
    "limitId" : 935
    },
    "version" : "2.2",
    "oddsChange" : "any"
```



10.8 System 3 / 5 including 1 Ways including 1 banker

```
"timestampUtc": 1545048120153,
"bets" : [ {
 "stake" : {
  "value" : 70000,
  "type" : "total"
 "id": "TicketGenerator_20181217120200_11_0",
 "selectedSystems": [3],
 "selectionRefs" : [ {
  "selectionIndex": 0,
   "banker" : false
 }, {
   "selectionIndex": 1,
  "banker" : true
 }, {
   'selectionIndex": 2,
  "banker" : false
 }, {
   "selectionIndex": 3,
  "banker" : false
 }, {
   "selectionIndex": 4.
  "banker" : false
 }]
}],
"ticketId": "TicketGenerator_20181217120200_11",
"selections" : [ {
    "eventId" : "sr:match:16343596",
 "id": "uof:3/sr:sport:1/1/3",
 "odds": 96000
}, {
 "eventId": "sr:match:14712131",
 "id": "uof:3/sr:sport:1/545/1718",
 "odds": 37000
 "eventId": "sr:match:15382648",
 "id": "uof:3/sr:sport:1/548/1738",
 "odds": 11800
 "eventId": "sr:match:15159925",
 "id": "uof:3/sr:sport:1/882/76?player=sr:player:190437",
 "odds": 10100
 "eventId": "sr:match:16343596",
 "id": "uof:3/sr:sport:1/1/2",
 "odds": 43200
} ],
'sender" : {
 "currency": "EUR",
 "channel" : "internet",
 "bookmakerld": 9985,
 "endCustomer" : {
  "ip": "127.0.0.1"
   "languageId": "EN",
```



```
"id": "7864545"
},
"limitId": 935
},
"version": "2.2",
"oddsChange": "any"
}
```

10.9 Championship Outright

In case of Championship Outright in **eventId** it should be noted **season** specifier coming from UOF. **Note**: Depends from type of outright in UOF can be "simple_tournament" or "simple_season" specifier instead of "season" specifier.

{
 "timestampUtc" : 1548068032184,

```
"timestampUtc": 1548068032184,
"bets" : [ {
 "stake" : {
  "value": 100000,
  "type" : "total"
 "id": "TicketGenerator_20190121105352_11_0",
 "selectedSystems":[1]
"ticketId": "TicketGenerator_20190121105352_11",
"selections" : [ {
    "eventId" : "sr:season:54571",
 "id": "uof:3/sr:sport:1/534/pre:outcometext:4861?variant=pre:markettext:59566",
 "odds": 16800
} ],
"sender" : {
 "currency": "EUR",
 "channel": "internet",
 "bookmakerld": 9985,
 "endCustomer": {
  "ip": "127.0.0.1",
  "languageId": "EN",
  "deviceId": "deviceId",
  "id": "endCustomer"
 "limitId": 1409
"version" : "2.2",
"oddsChange": "any"
```



10.10 Podium Outright

In case of Podium Outright: in **eventld** it should be noted the **season** value specifier coming from UOF. And in selections.id should be always **winners** specifier from UOF.

```
"timestampUtc": 1548069101015,
"bets" : [ {
 "stake" : {
   "value": 100000,
   "type" : "total"
 },
"id": "TicketGenerator_20190121111141_17_0",
 "selectedSystems" : [ 1 ]
} ],
"ticketId": "TicketGenerator_20190121111141_17",
"selections" : [ {
 "eventId": "sr:season:54571",
 "id": "uof:3/sr:sport:1/536/pre:outcometext:4871?winners=4&variant=pre:markettext:61103",
 "odds": 11600
}],
 'sender" : {
 "currency": "EUR",
 "channel": "internet",
 "bookmakerld": 9985,
 "endCustomer": {
   "ip": "127.0.0.1",
   "languageld": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
 "limitId" : 1409
},
"version" : "2.2",
"oddsChange": "any"
```



10.11 Two single bets on the same event within one ticket

This is a ticket example where punter/better/endCustomer chooses two selections from different markets, but from the same event. Before MTS ticket version 2.2, the Operator/Bookmaker needed to split such bets into several bets within the same ticket to resolve related contingency. From MTS ticket version 2.2 there is no need to split such bets into several bets. As an optional parameter, it is possible to include "totalCombinations" which defines the number of combinations generated by a particular bet. Where "totalCombinations" is included in the bet then MTS will compare this value with the number of combinations calculated by MTS. Where there is a deviation, MTS will reject the bet. If the parameter "totalCombinations" is not in the bet then MTS will skip this comparison. In the example below, are noted the three selections:

1. uof:3/sr:sport:2/229/72 from event: "sr:match:15329094"

- 2. uof:3/sr:sport:2/1/1 from event: "sr:match:15329094"
- 3. uof:3/sr:sport:1/78/84 from event "sr:match:15382648"

first two selections are related (from the same event). In other words, these two selections cannot be presented in the same combinations.

And "selectedSystems" has value 2. Therefore, below example creates two combinations of doubles

- first and third selections
- second and third selections

```
That is why "totalCombinations" is 2.
 "timestampUtc": 1545048539572,
 "bets" : [ {
   "stake" : {
   "value": 50000,
    "type" : "total"
  "id": "TicketGenerator_20181217120859_15_0",
  "selectedSystems" : [ 2 ]
 }],
 "ticketId" : "TicketGenerator_20181217120859_15",
 "selections" : [ {
  "eventId": "sr:match:15329094",
  "id": "uof:3/sr:sport:2/229/72",
  "odds": 16300
  "eventId": "sr:match:15329094",
  "id": "uof:3/sr:sport:2/1/1",
  "odds": 11000
  "eventId": "sr:match:15382648",
  "id": "uof:3/sr:sport:1/78/84",
  "odds": 22900
 "sender" : {
  "currency": "EUR",
  "channel" : "internet"
  "bookmakerld": 9985,
   "endCustomer": {
    "ip": "127.0.0.1"
    "languageld": "EN",
    "id": "7864545"
   "limitId" : 935
 "version": "2.2",
 "oddsChange": "any",
 "totalCombinations" : 2
```



10.12 4-Fold Accumulator with 80 Cents Sport-betting bonus

In the example below, the value of "bonus" is 8000 (0.80 euro cent multiplied by 10 000). This value defines how much the operator is going to pay the end-customer/punter in case a bet is settled as Won.

Note: MTS only supports these types of bonuses. Free bets or bets based on promotion credits are considered as bets based on real money as they create the same level of risk as bets on real money.

```
"timestampUtc": 1545050479471,
"bets" : [ {
 "stake" : {
  "value" : 50000,
  "type" : "total"
"bonus": {
    "value": 8000,
    "type": "total",
    "mode": "all"
 "id": "TicketGenerator_20181217124119_21_0",
 "selectedSystems": [4]
"ticketId": "TicketGenerator_20181217124119_21",
"selections" : [ {
 "eventId": "sr:match:15036157",
 "id": "uof:3/sr:sport:1/68/13?total=1",
 "odds": 15600
 "eventId": "sr:match:14950205",
 "id": "uof:3/sr:sport:1/60/1",
 "odds": 31500
 "eventId": "sr:match:15335456",
 "id": "uof:3/sr:sport:1/45/274",
 "odds": 64000
}, {
 "eventId": "sr:match:15330412",
 "id": "uof:3/sr:sport:2/83/3",
 "odds": 19500
} ],
"sender" : {
 "currency": "EUR",
 "channel": "internet",
 "bookmakerld": 9985,
 "endCustomer": {
  "ip": "127.0.0.1"
  "languageId": "EN",
  "id": "7864545"
 "limitId": 935
"version" : "2.2"
"oddsChange": "any"
```



10.13 Multi-system bets ticket with different stakes

```
"timestampUtc": 1548079229068,
 "bets" : [ {
  "stake" : {
  "value" : 100000,
    "type" : "total"
  },
"id": "TicketGenerator_20190121140029_8_0",
  "selectedSystems":[3]
 }, {
   "stake" : {
   "value": 100000,
   "type": "total"
  },
"id": "TicketGenerator_20190121140029_8_1",
  "selectedSystems": [2]
 }],
 "ticketId": "TicketGenerator_20190121140029_8",
 "selections" : [ {
  "eventId": "sr:match:15857670",
  "id":
"uof:3/sr:sport:2/849/sr:winning_margin_no_draw_any_team:31+:1297?variant=sr:winning_margin_no_dr
aw_any_team:31+",
  "odds" : 44500
 }, {
  "eventId": "sr:match:17086515",
  "id": "uof:3/sr:sport:1/37/804?total=4.5",
  "odds": 129000
 }, {
  "eventId": "sr:match:16496563",
  "id": "uof:3/sr:sport:1/820/1877",
  "odds": 800000
 "sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985,
  "endCustomer": {
   "ip": "127.0.0.1".
   "languageId": "EN",
   "deviceId": "deviceId".
   "id": "endCustomer"
  },
"limitId" : 1409
},
"version": "2.2",
"hange":
 "oddsChange": "any"
```



Page | 56

10.14 Multi-systems ticket with different number of selections and with different unit-stakes

```
{ "timestampUtc" : 1548079379463,
 "bets" : [ {
  "stake" : {
   "value": 100000,
   "type" : "total"
  "id": "TicketGenerator_20190121140259_11_0",
  "selectedSystems" : [ 2 ]
 }, {
  "stake" : {
   "value" : 100000,
"type" : "total"
  },
"id" : "TicketGenerator_20190121140259_11_1",
  "selectedSystems" : [ 2 ],
  "selectionRefs" : [ {
   "selectionIndex": 0,
   "banker" : false
  }, {
    'selectionIndex": 1,
   "banker" : false
  }]
 }],
 "ticketId": "TicketGenerator 20190121140259 11",
 "selections" : [ {
  "eventId": "sr:match:15857670",
"uof:3/sr:sport:2/849/sr:winning_margin_no_draw_any_team:31+:1297?variant=sr:winning_margin_no_dr
aw_any_team:31+",
  "odds" : 44500
 }, {
  eventId": "sr:match:17086515",
  "id": "uof:3/sr:sport:1/37/804?total=4.5",
  "odds": 129000
 }, {
  "eventId": "sr:match:16496563",
  "id": "uof:3/sr:sport:1/820/1877",
  "odds": 800000
 }],
 'sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985,
  "endCustomer": {
   "ip": "127.0.0.1",
   "languageId": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
  "limitId" : 1409
 "version" : "2.2",
 "oddsChange" : "any"}
```

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10.15 Ticket acknowledgment: Rejected ticket by MTS but accepted by Bookmaker

```
"timestampUtc": 1548248124449,
 "bets" : [ {
  "stake" : {
   "value": 100000,
   "type": "total"
  },
"id": "TicketGenerator_20190123125524_12576_0",
  "selectedSystems":[1]
 } ],
 "ticketId" : "TicketGenerator 20190123125524 12576",
 "selections" : [ {
  "eventId": "sr:match:16899277",
  "id": "uof:3/sr:sport:1/1/1",
  "odds": 19400
 } ],
 'sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985,
  "endCustomer": {
   "ip": "127.0.0.1",
   "languageld": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
  "limitId": 1409
 "version": "2.2",
 "oddsChange": "any"
Response from MTS(ticket was rejected by MTS):
 "result" : {
  "ticketId": "TicketGenerator_20190123125524_12576",
  "status": "rejected",
  "reason" : {
   "code": -703,
   "message": "Liability EUR 9.4 is over Customer Bet liability limit EUR 4.5 on Customer level,
Selection: uof:3/sr:sport:1/1/1, Match: 16899277"
  "betDetails" : [ {
   "betId": "TicketGenerator 20190123125524 12576 0",
   "reason" : {
     "code": -703.
     "message": "Liability EUR 9.4 is over Customer Bet liability limit EUR 4.5 on Customer level,
Selection: uof:3/sr:sport:1/1/1, Match: 16899277"
   "selectionIndex": 0,
     "reason" : {
      "code" : -703,
      "message": "Liability EUR 9.4 is over Customer Bet liability limit EUR 4.5 on Customer level,
Selection: uof:3/sr:sport:1/1/1, Match: 16899277"
```



```
"rejectionInfo" : {
      "eventld" : "16899277",
"id" : "uof:3/sr:sport:1/1/1",
       "odds": 19400
   } ]
  } ]
 "version": "2.2",
 "signature": "bE7zH4uLSoRfmRmr4DzhlTQZglDCTR9KpR6BhcshKW0=",
 "exchangeRate" : 10000
Acknowledgment from Bookmaker that ticket was still accepted on Bookmaker side:
 "sender" : {
   "bookmakerId": 9985
 },
"ticketId": "TicketGenerator_20190123125524_12576",
 "ticketStatus": "accepted",
 "code": 300,
 "message": "LTicket was accepted", "timestampUtc": 1548248127989, "version": "2.2"
}
```



10.16 Ticket cancellation acknowledgement communication

```
"timestampUtc": 1548248338794,
 "bets" : [ {
  "stake" : {
    "value" : 100000,
    "type" : "total"
  },
"id": "TicketGenerator_20190123125858_12577_0",
  "selectedSystems": [1]
 } ],
 "ticketId": "TicketGenerator 20190123125858 12577",
 "selections" : [ {
    "eventId" : "sr:match:14736719",
  "id": "uof:3/sr:sport:1/1/2",
  "odds": 33600
 } ],
  'sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985,
  "endCustomer": {
    "ip": "127.0.0.1",
    "languageId": "EN",
    "deviceId": "deviceId",
    "id": "endCustomer"
  "limitId": 1409
 "version": "2.2",
 "oddsChange": "any"
Response on the ticket:
 "result" : {
  "ticketId": "TicketGenerator_20190123125858_12577", "status": "accepted",
  "reason": {
    "code": 1024,
    "message": "Ticket accepted"
  "betDetails" : []
 "version" : "2.2".
 "signature": "TKB8nY6t21qL9ff2GFn43jlYllgp/oy07E28jzQllTU=",
 "exchangeRate": 10000
Ticket is cancelled request from Operator to cancel bet with code 103:
 "timestampUtc": 1548248354190,
 "ticketId": "TicketGenerator_20190123125858_12577",
 "sender" : {
  "bookmakerId": 9985
```



```
"code": 103,
 "version": "2.2"
Ticket cancellation request was accepted by MTS:
 "result" : {
  "ticketId": "TicketGenerator_20190123125858_12577",
  "status": "cancelled",
  "reason": {
   "code": 1024,
   "message": "Ticket Cancellation accepted"
 "signature": "BFGzUtfX5g3ihmlvelv4WWyVA6e8k4yPePg4ON4jigU=",
 "version": "2.2"
Acknowledgement that ticket was cancelled on Bookmaker side:
 "sender" : {
  "bookmakerld": 9985
 "ticketId": "TicketGenerator 20190123125858 12577",
 "ticketStatus": "cancelled",
 "code": 1024,
 "message": "Ticket cancelled",
 "timestampUtc": 1548248456590,
 "version" : "2.2"
```

10.17 Bet re-offer accepted by MTS example

Note: Ticket must contains fields "reofferRefId" and/or "bets[i].reofferRefId" (RFU) with correct data. The "odds" field values in re-offered ticket must be same as in initial ticket. Field "stake.value" must be same as in re-offer.

```
Ticket acceptance request from Operator to MTS:
```

```
"timestampUtc": 1548253176701,
"bets" : [ {
 "stake" : {
  "value": 10000000,
  "type" : "total"
 "id": "TicketGenerator 20190123141936 13690 0",
 "selectedSystems": [1]
"ticketId": "TicketGenerator_20190123141936_13690",
"selections" : [ {
 "eventId": "sr:match:14895063",
 "id": "uof:3/sr:sport:1/1/1",
 "odds": 20800
}],
 sender" : {
 "currency" : "EUR",
"channel" : "internet",
 "bookmakerld": 9985,
 "endCustomer": {
```

Page | 60



```
"ip": "127.0.0.1",
   "languageld": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
  "limitId": 1409
 "version": "2.2",
 "oddsChange": "any"
Ticket rejection response from MTS to Operator:
 "result": {
  "ticketId": "TicketGenerator 20190123141936 13690".
  "status": "rejected",
  "reason": {
   "code": -703,
   "message": "Liability EUR 1101.6 is over Customer Bet liability limit EUR 900.0 on Customer level,
Selection: uof:3/sr:sport:1/1/1, Match: 14895063"
  },
"betDetails" : [ {
   "betId": "TicketGenerator_20190123141936_13690_0",
   "reason": {
     "code": -703,
     "message" : "Liability EUR 1101.6 is over Customer Bet liability limit EUR 900.0 on Customer level,
Selection: uof:3/sr:sport:1/1/1, Match: 14895063"
    'selectionDetails" : [ {
     "selectionIndex": 0,
     "reason" : {
      "code": -703,
      "message": "Liability EUR 1101.6 is over Customer Bet liability limit EUR 900.0 on Customer level,
Selection: uof:3/sr:sport:1/1/1, Match: 14895063"
     "rejectionInfo": {
      "eventId": "14895063".
      "id": "uof:3/sr:sport:1/1/1",
      "odds": 20800
   }],
    "reoffer" : {
    "stake": 8052800,
     "type" : "auto"
   }
  }]
 "version": "2.2",
 "signature": "ouTTanYbQB7mWvPtIIt8QwAoQLy3kOStQgOVUlc4XDE=",
 "exchangeRate": 10000
Ticket acceptance request with reduced stake from Operator to MTS:
 "timestampUtc": 1548253176701,
 "bets" : [ {
  "stake" : {
   "value": 8052800,
   "type": "total"
  },
```



```
"id": "TicketGenerator_20190123141936_13690_0",
  "selectedSystems": [1],
  "reofferRefId": "TicketGenerator_20190123141936_13690"
 "ticketId": "TicketGenerator_20190123141936_13690-reoffer",
 "selections" : [ {
  "eventId": "sr:match:14895063",
  "id": "uof:3/sr:sport:1/1/1",
  "odds": 20800
 }],
  "sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985,
  "endCustomer": {
    "ip": "127.0.0.1"
    "languageId": "EN",
    "deviceId": "deviceId",
    "id": "endCustomer"
  },
"limitId" : 1409
 },
 "reofferRefId": "TicketGenerator_20190123141936_13690",
 "version" : "2.2",
"oddsChange" : "any"
Ticket acceptance response from MTS to Operator:
{
 "result" : {
  "ticketId": "TicketGenerator 20190123141936 13690-reoffer",
  "status": "accepted",
  "reason" : {
    "code": 1024,
    "message": "Ticket accepted"
  },
  "betDetails" : []
 "version": "2.2",
 "signature": "41P7SKKOtj703OkXx4GRAlk/zqBvh+D63NqIhvvW1hA=",
 "exchangeRate": 10000
}
```



10.18 Bet re-offer rejected by MTS example

Ticket acceptance request from Operator to MTS:

```
"timestampUtc": 1548253736322,
 "bets" : [ {
  "stake" : {
   "value": 10000000,
   "type" : "total"
  "id": "TicketGenerator_20190123142856_13691_0",
  "selectedSystems":[1]
 "ticketId": "TicketGenerator_20190123142856_13691",
 "selections" : [ {
  "eventId": "sr:match:17006589",
  "id": "uof:3/sr:sport:1/1/3",
  "odds": 20800
 } ],
 "sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerId": 9985,
  "endCustomer": {
   "ip": "127.0.0.1"
   "languageld": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
  "limitId" : 1409
 },
 "version" : "2.2".
 "oddsChange": "any"
Ticket rejection response from MTS to Operator:
  "ticketId": "TicketGenerator_20190123142856_13691",
  "status": "rejected",
  "reason" : {
   "code": -703,
   "message": "Liability EUR 1080.0 is over Customer Bet liability limit EUR 299.7 on Customer level,
Selection: uof:3/sr:sport:1/1/3, Match: 17006589"
  "betDetails" : [ {
   "betId": "TicketGenerator_20190123142856_13691_0",
   "reason": {
    "code": -703.
     "message": "Liability EUR 1080.0 is over Customer Bet liability limit EUR 299.7 on Customer level,
Selection: uof:3/sr:sport:1/1/3, Match: 17006589"
    "selectionDetails" : [ {
     "selectionIndex": 0,
     "reason": {
```



```
"code": -703,
      "message": "Liability EUR 1080.0 is over Customer Bet liability limit EUR 299.7 on Customer level,
Selection: uof:3/sr:sport:1/1/3, Match: 17006589"
     "rejectionInfo": {
      "eventId": "17006589",
      "id": "uof:3/sr:sport:1/1/3",
      "odds" : 20800
   }],
    "reoffer": {
     "stake": 2747500,
     "type" : "auto"
  }]
 "version": "2.2",
 "signature": "8jvNF/dDn/CrHz/McurlfZAyxUgRiPm4P8t2xdvE2h8=",
 "exchangeRate": 10000
Ticket acceptance request with reduced stake(but higher than re-offered stake) from Operator to
MTS:
{
 "timestampUtc": 1548253736322,
 "bets" : [ {
   "stake" : {
   "value" : 3747500,
   "type": "total"
  "id": "TicketGenerator_20190123142856_13691_0",
  "selectedSystems": [1],
  "reofferRefld": "TicketGenerator 20190123142856 13691"
 } ],
 "ticketId": "TicketGenerator_20190123142856_13691-reoffer",
 "selections" : [ {
  "eventId": "sr:match:17006589",
  "id": "uof:3/sr:sport:1/1/3",
  "odds": 20800
 } ],
  'sender" : {
  "currency": "EUR",
"channel": "internet",
  "bookmakerld": 9985,
  "endCustomer": {
   "ip": "127.0.0.1"
   "languageld": "EN"
   "deviceId": "deviceId",
    "id": "endCustomer"
  "limitId": 1409
 "reofferRefId": "TicketGenerator_20190123142856_13691",
 "version": "2.2",
 "oddsChange": "any"
```



```
Ticket rejection response from MTS to Operator as bet re-offer was done with stake higher than suggested:
```

```
"result" : {
  "ticketId" : "TicketGenerator_20190123142856_13691-reoffer",
  "status" : "rejected",
  "reason" : {
    "code" : -210,
    "message" : "Stake does not match re-offered stake."
    },
    "betDetails" : [ ]
},
  "version" : "2.2",
  "signature" : "ksrHGpPGZ0Tp9McuPHy2pvFxkm4OyOHmoELIsCZ60Lc=",
  "exchangeRate" : 10000
}
```

10.19 Cashout request accepted by MTS

```
Ticket acceptance request from Operator to MTS:

{
    "timestampUtc" : 1548254336761,
    "bets" : [ {
        "value" : 100000,
        "type" : "total"
      },
      "id" : "TicketGenerator_20190123143856_13694_0",
      "selectedSystems" : [ 1 ]
```

```
"ticketId" : "TicketGenerator_20190123143856_13694",
"selections" : [ {
    "eventId" : "sr:match:17006591",
```

"id" : "uof:3/sr:sport:1/1/1", "odds" : 35200 }],

"currency": "EUR", "channel": "internet", "bookmakerld": 9985,

'sender" : {

"endCustomer" : {
"ip" : "127.0.0.1",
"languageld" : "EN",
"deviceld" : "deviceld",

"id": "endCustomer" },

"limitId" : 1409 }, "version" : "2.2",

"oddsChange": "any"

Ticket acceptance response from MTS to Operator:

```
"timestampUtc" : 1548254336761,
"bets" : [ {
    "stake" : {
```



```
"value": 100000,
   "type" : "total"
  },
"id": "TicketGenerator_20190123143856_13694_0",
  "selectedSystems":[1]
 "ticketId": "TicketGenerator_20190123143856_13694",
 "selections" : [ {
  "eventId": "sr:match:17006591",
  "id": "uof:3/sr:sport:1/1/1",
  "odds": 35200
} ],
 "sender" : {
  "currency": "EUR",
  "channel" : "internet".
  "bookmakerld": 9985,
  "endCustomer": {
   "ip": "127.0.0.1"
   "languageId": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
  "limitId" : 1409
},
 "version": "2.2",
 "oddsChange": "any"
Cashout message from Operator to MTS:
 "timestampUtc": 1548254363296,
 "ticketId": "TicketGenerator_20190123143856_13694",
 "sender" : {
  "bookmakerId": 9985
 "cashoutStake": 9000,
 "version": "2.2"
Cashout acceptance response from MTS to Operator:
 "result": {
  "ticketId": "TicketGenerator_20190123143856_13694",
  "status" : "accepted",
"reason" : {
   "code": 1024,
   "message": "cashout accepted"
 "signature": "msHlc96JQZ9Fcnmjpkh3M5Jat9SgEsyFVpMdibjOFsY=",
 "version": "2.2"}
```

Page | 66



10.20 Cashout request declined by MTS

```
Ticket acceptance request from Operator to MTS:
 "timestampUtc": 1548255245831,
 "bets" : [ {
  "stake" : {
   "value": 100000,
    "type" : "total"
  },
"id": "TicketGenerator_20190123145405_13695_0",
  "selectedSystems":[1]
 } ],
 "ticketId": "TicketGenerator_20190123145405_13695",
 "selections" : [ {
  "eventId": "sr:match:17006591",
  "id": "uof:3/sr:sport:1/1/3",
  "odds": 15700
 }],
 "sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985.
  "endCustomer": {
   "ip": "127.0.0.1"
   "languageld": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
  "limitId": 1409
 "version": "2.2",
 "oddsChange": "any"
Ticket acceptance response from MTS to Operator:
 "result" : {
  "ticketId": "TicketGenerator_20190123145405_13695",
  "status": "accepted",
  "reason" : {
   "code": 1024,
   "message": "Ticket accepted"
  },
"betDetails" : [ ]
 },
 "version" : "2.2",
 "signature": "hAk3gpYJoNXmWHHE6eQzoSndrMeDoAPKqmHolKm/rQI=",
 "exchangeRate": 10000
Cashout message from Operator to MTS:
 "timestampUtc": 1548255248489,
 "ticketId": "TicketGenerator_20190123145405_13695",
 "sender" : {
```



```
"bookmakerId": 9985
 },
 "cashoutStake": 1000,
 "version": "2.2"
Cashout declination response from MTS to Operator:
 "result" : {
  "ticketId": "TicketGenerator 20190123145405 13695",
  "status": "rejected",
  "reason" : {
   "code": -102,
   "message": "cashout disabled"
 "signature": "ajPXhR6ER7BNDOO2woUIpBzQhbqp/48j61RfihMRSA8=",
 "version": "2.2"
10.21 Bet with enabled alternative odds
 "timestampUtc": 1548768915182,
 "bets" : [ {
  "stake" : {
  "value" : 100000,
    "type" : "total"
  },
"id": "TicketGenerator_20190129133515_69_0",
  "selectedSystems":[1]
 "ticketId": "TicketGenerator_20190129133515_69",
 "selections" : [ {
  "eventId": "sr:match:17180753",
  "id": "uof:1/sr:sport:5/186/5",
  "odds": 11900
 } ],
 "sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 7900,
  "endCustomer": {
   "ip": "127.0.0.1",
   "languageId": "EN",
   "deviceId": "deviceId",
   "id": "endCustomer"
  },
"limitId" : 1398
 },
 "version" : "2.2",
 "oddsChange": "any"
```



Response:

```
{
  "result" : {
    "ticketId" : "TicketGenerator_20190129133515_69",
    "status" : "accepted",
    "reason" : {
        "code" : 1024,
        "message" : "Ticket accepted"
    },
    "betDetails" : []
},
  "autoAcceptedOdds" : [ {
        "selectionIndex" : 0,
        "requestedOdds" : 11900,
        "usedOdds" : 15151
} ],
  "version" : "2.2",
  "signature" : "vPLuZPP5vgkx8jDMGLKt0RLCvGAjB/GKDvgrwLIIFwg=",
  "exchangeRate" : 10000
}
```



11 Appendix B Invalid Tickets

11.1 Breaching liability limit

```
"timestampUtc": 1548315675300,
 "bets" : [ {
   "stake" : {
    "value": 100000,
    "type" : "total"
  "id": "TicketGenerator_20190124074115_106_0",
  "selectedSystems": [1]
 "ticketId": "TicketGenerator_20190124074115_106",
 "selections" : [ {
  "eventId": "sr:match:16062952",
  "id": "uof:3/sr:sport:2/301/1003?quarternr=1",
  "odds": 43000
 } ],
  'sender" : {
  "currency" : "EUR",
"channel" : "internet",
  "bookmakerld": 9985,
  "endCustomer": {
    "ip": "127.0.0.1",
    "languageld": "EN"
    "deviceId": "deviceId",
    "id": "endCustomer"
  },
"limitId" : 1409
 "version": "2.2",
 "oddsChange": "any"
Response:
 "result" : {
  "ticketId": "TicketGenerator_20190124074115_106",
  "status": "rejected",
  "reason" : {
    "code" : -703,
    "message": "Liability EUR 33.0 is over Customer Bet liability limit EUR 1.35 on Customer level,
Selection: uof:3/sr:sport:2/301/1003?quarternr=1, Match: 16062952"
  },
"betDetails" : [ {
    "betId": "TicketGenerator_20190124074115_106_0",
    "reason" : {
     "code": -703,
     "message": "Liability EUR 33.0 is over Customer Bet liability limit EUR 1.35 on Customer level,
Selection: uof:3/sr:sport:2/301/1003?quarternr=1, Match: 16062952"
    "selectionDetails" : [ {
     "selectionIndex": 0,
     "reason": {
```



```
"code": -703,
      "message": "Liability EUR 33.0 is over Customer Bet liability limit EUR 1.35 on Customer level,
Selection: uof:3/sr:sport:2/301/1003?quarternr=1, Match: 16062952"
     rejectionInfo" : {
       "eventId": "16062952",
       "id": "uof:3/sr:sport:2/301/1003?quarternr=1",
      "odds": 43000
   } ]
  }]
 "version" : "2.2",
 "signature": "u85M5DtveSQToXuc36sG5XOSd1laiMW4lwBlKiH6A1c=",
 "exchangeRate": 10000
11.2 Exceeding maximum payout limit
 "timestampUtc": 1548315845199,
 "bets" : [ {
  "stake" : {
    "value": 1000000,
    "type" : "total"
  "id": "TicketGenerator 20190124074405 108 0",
  "selectedSystems":[1]
 "ticketId": "TicketGenerator_20190124074405_108",
 "selections" : [ {
    "eventId" : "sr:match:16797779",
    "id" : "uof:3/sr:sport:1/16/1714?hcp=-1.5",
  "odds": 23600
 } ],
 "sender" : {
  "currency" : "EUR",
"channel" : "internet",
  "bookmakerld": 9985,
  "endCustomer": {
    "ip": "127.0.0.1",
    "languageld": "EN",
    "deviceId": "deviceId",
    "id": "endCustomer"
  "limitId" : 1409
 },
 "version": "2.2",
 "oddsChange": "any"
```

Page | 71



```
Response:
 "result" : {
  "ticketId": "TicketGenerator_20190124074405_108",
  "status" : "rejected",
  "reason" : {
   "code": -511,
   "message": "Payout is higher than the max payout for Limit ID 1409. Bet payout 136.0, Max payout
100.0"
  "betDetails" : [ {
   "betId": "TicketGenerator_20190124074405_108_0",
     "code": -511,
     "message": "Payout is higher than the max payout for Limit ID 1409. Bet payout 136.0, Max payout
100.0"
    "selectionDetails": [],
    "reoffer" : {
     "stake" : 735200,
     "type" : "auto"
  }]
 },
 "version": "2.2",
 "signature": "zQSn04lsmYz7RKvwsTlEVaL97MBijlhQr6ETcgEyC24=",
 "exchangeRate": 10000
11.3 Stake is lower than minimum stake limit
 "timestampUtc": 1548315941958,
 "bets" : [ {
  "stake" : {
   "value" : 10000,
"type" : "total"
  },
"id": "TicketGenerator_20190124074541_109_0",
  "selectedSystems" : [ 1 ]
 "ticketId": "TicketGenerator 20190124074541 109",
 "selections" : [ {
  "eventId": "sr:match:16384928",
  "id": "uof:3/sr:sport:2/303/1714?hcp=-0.5&quarternr=4",
  "odds": 15200
 } ],
 "sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985,
  "endCustomer" : {
   "ip": "127.0.0.1"
    "languageld": "EN",
   "deviceId": "deviceId",
    "id": "endCustomer"
  },
```



```
"limitId": 1409
 },
 "version": "2.2",
 "oddsChange": "any"
Response:
 "result":{
  "ticketId": "TicketGenerator 20190124074541 109",
  "status": "rejected",
  "reason": {
    "code": -306,
    "message": "Stake EUR amount 1 is too low. Minimum allowed on Limit ID level is 2"
  },
"betDetails" : [ {
    "betId": "TicketGenerator_20190124074541_109_0",
    "reason" : {
     "code": -306,
     "message": "Stake EUR amount 1 is too low. Minimum allowed on Limit ID level is 2"
   },
"selectionDetails" : [ ]
  }]
 },
 version" : "2.2",
 "signature": "+dflzKXkmCDwkDAbXwEsafd5RQzIvKtVn0wA8innGHU=",
 "exchangeRate": 10000
11.4 Outcome is not active
 "timestampUtc": 1548318605798,
 "bets" : [ {
  "stake" : {
    "value" : 10000,
"type" : "total"
  },
"id": "TicketGenerator_20190124083005_116_0",
  "selectedSystems" : [ 1 ]
 "ticketId": "TicketGenerator 20190124083005 116",
 "selections" : [ {
  "eventId": "sr:match:17129581",
  "id": "uof:1/sr:sport:5/207/873?setnr=1",
  "odds": 53400
 } ],
  "sender" : {
  "currency": "EUR",
  "channel": "internet",
  "bookmakerld": 9985,
   "endCustomer": {
    "ip": "127.0.0.1"
    "languageld": "EN",
    "deviceId": "deviceId",
    "id": "endCustomer"
  },
```



```
"limitId": 1409
 "version": "2.2",
 "oddsChange": "any"
Response:
 "result":{
  "ticketId": "TicketGenerator 20190124083005 116",
  "status": "rejected",
  "reason" : {
   "code": -404,
   "message": "Outcome is not active in MTS, Selection: uof:1/sr:sport:5/207/873?setnr=1, Match:
17129581 + [Tennis, ITF Men, Itf Egypt F1, Men Singles, Rosenkranz, Mats vs Tseng, Chun Hsin,
Correct score in set Tennis]"
  "betDetails" : [ {
   "betId": "TicketGenerator_20190124083005_116_0",
   "reason" : {
     "code": -404,
     "message": "Outcome is not active in MTS, Selection: uof:1/sr:sport:5/207/873?setnr=1, Match:
17129581 + [Tennis, ITF Men, Itf Egypt F1, Men Singles, Rosenkranz, Mats vs Tseng, Chun Hsin,
Correct score in set Tennis]"
    "selectionDetails" : [ {
     "selectionIndex": 0,
     "reason" : {
      "code": -404,
      "message": "Outcome is not active in MTS, Selection: uof:1/sr:sport:5/207/873?setnr=1, Match:
17129581 + [Tennis, ITF Men, Itf Egypt F1, Men Singles, Rosenkranz, Mats vs Tseng, Chun Hsin,
Correct score in set Tennis]"
     "rejectionInfo": {
      "eventId": "17129581",
      "id": "uof:1/sr:sport:5/207/873?setnr=1",
      "odds": 53400
   }]
  }]
 "version" : "2.2",
 "signature": "zekwBlaVc81ci7pXEUR7r19fkMDvtPsLab25QhTDVcY=",
 "exchangeRate": 10000
```



12 Appendix C Ticket cancellation

12.1 Cancellation request

```
"timestampUtc": 1548318845996,

"ticketId": "TicketGenerator_20190124083402_117",

"sender": {
    "bookmakerId": 9985
},

"code": 103,

"version": "2.2"
```

12.2 Response for the valid cancellation request

```
{
  "result" : {
    "ticketId" : "TicketGenerator_20190124083402_117",
    "status" : "cancelled",
    "reason" : {
        "code" : 1024,
        "message" : "Ticket Cancellation accepted"
      }
    },
    "signature" : "BFJK6a0L11KSK9OHK9kTcHhXKFEWpYmj23OTYC8cO88=",
    "version" : "2.2"
}
```

12.3 Responses for invalid cancellation requests

12.3.1 Ticket not found

```
This will happen if a ticket cancellation request is sent for a ticket that does not exist in MTS 

{
    "result" : {
        "ticketId" : "TicketGenerator_20190124083402_118",
        "status" : "not_cancelled",
        "reason" : {
            "code" : -2010,
            "message" : "Ticket not found"
        }
    },
    "signature" : "997XLEFQYBKyhzTK7NQRc6JyH4AsVZXrQw5oP3TOSXY=",
    "version" : "2.2"
}
```



12.3.2 Cancellation type is not active

This will happen if a ticket cancellation request is sent for a particular cancellation type that has not been activated on the MTS side. In this case the client should contact OAM

```
{
  "result" : {
    "ticketId" : "TicketGenerator_20190124083733_118",
    "status" : "not_cancelled",
    "reason" : {
        "code" : -2016,
        "message" : "Cannot be canceled because particular cancellation option is not active"
    }
    },
    "signature" : "mdTS2S3aYa8EUT1aHHTkGN9/Vt8W39FkVrMfOVn4D6Y=",
    "version" : "2.2"
}
```



13 Appendix D (Validation codes)

Table 13-1

Table 13-1					
Scenario	Outcome	Code	Rejection message		
Checks passed	Accepted	1024			
	Model Exc	eptions			
A field which is mandatory in the ticket is missing or empty. The missing field is specified in the rejection message.	Rejected	-100	The following mandatory field is missing: <pre><pre><pre><parametername></parametername></pre></pre></pre>		
Value in mandatory field has wrong type	Rejected	-101	Invalid value in field bet.sys, is not of expected type		
Value in optional field has wrong type	Rejected	-102	Invalid value in field bets.selectionRefs.banker is not of expected type		
A field which is supposed to contain a number was sent in the ticket by the customer but with the wrong number type. For example, a float was sent instead of an integer. The field with wrong number type is specified in the rejection message.fields only)	Rejected	-103	Invalid numeric type for field bet.stk		
A date field is sent with the wrong format. Field, wrong date and expected format are specified in the rejection message.	Rejected	-104	Invalid date format for field "ts_UTC", found "20161616", expected date format is "YYYYMMDDHHMMSS"		
a)The field ChanneID was sent with a value which is not recognized by MTS or with a format error. Allowed values are listed in the rejection message.			a)Invalid value in field "channelId", found "Custom", allowed values are [Internet, Mobile, Retail, SMS, Terminals, call centre]		
b)The field source.terminalID was sent with a value which exceeds the allowed length.	Rejected	-106	b)Invalid value in field source.terminalID, found "x" exceeds maximum allowed length		
c)The field endcustomerID was sent with a value which exceeds the allowed length.			c)Invalid value in field endcustomerID, found "x" exceeds maximum allowed length		
Value out of allowed range (only for fields outside source object)	Rejected	-107	Value in field <parametername> is out of allowed range,found <parametername>, allowed range is X <> Y</parametername></parametername>		
One of the combination of selection in the multi-bet ticket is not acceptable	Rejected	-108	Ticket contains a bet with duplicate value in field bets.selectionRefs.selectionIndex		
Ticket contains an invalid ticket version	Rejected	-109	Invalid value in field version, found X.Y, allowed values are [1.4, 2.0, 2.1 and 2.2]		
Ticket Exceptions					
Ticket has no bet	Rejected	-201	The following mandatory field is missing: bets		
Ticket has no selections	Rejected	-202	The following mandatory field is missing: selections		
Bet extension has no bookmaker name	Rejected	-204	The following mandatory field is missing: sender.bookmakerId		
The field "Market" contains a value which is not recognizable by MTS.	Rejected	-205	Invalid prefix or incorrect market pattern in field selections.id, Selection: <selection url="">, Match:</selection>		



Either the prefix which specifies if the market is live, pre-match or uof is not correct or value in "Market" field is not correct.			<event id=""></event>
Illegal values in selectedsystems. The n-fold type requested is not compliant with the number of selections. It is not possible, for example, to ask for 12folds if the number of selected market is 6. Also Bankers must be kept into consideration as, if bankers are selected the number of possible folds out of a certain number of selections decreases.	Rejected	-207	Values [X] in selectedSystems array are invalid for bet with Y selections incl. Z bankers
LimitID field is missing	Rejected	-209	The following mandatory field is missing: sender.limitId
The reofferRefId in the ticket (after reoffer) does not match the ID of the original ticket The stake (after re-offer) does not match	Rejected	-210	1) Does not match reofferRefId ticket #MTS_Ticket_Version_20_Test_123 2) Stake does not match re-offered stake.
Timing for sending re-offered bet expired	Rejected	-211	Contains reofferRefId #MTS_Ticket_Version_20_Test_923 that was not found
Bet Ids provided for bets in the ticket are not acceptable	Rejected	-212	Inconsistent bet ids on ticket, either all must be defined, or none

Data Format Exceptions				
Stake value is negative	Rejected	-301	Invalid value in field bets.stake.value, found -X, should be a positive value	
Euro Stake is negative	Rejected	-302	"ticket#%s has negative EUR stake %s"	
Stake is missing or is null	Rejected	-305	Invalid value in field bet.stk	
Bet stake is lower than bookmaker min stake limit	Rejected	-306	Stake EUR amount X is too low. Minimum allowed on Limit ID level is Y	
The currency field is filled with a value which is not recognizable by MTS. Please, check the value sent	Rejected	-307	Currency YYY is not found in MTS	
Max admitted stake is exceeded	Rejected	-308	Max stake is too high	
Timestamp in the ticket is future time	Rejected	-309	Value in field timestampUtc is future time	
Timestamp in ticket is outdated time	Rejected	-310	Value in field timestampUtc is outdated time	
Unit stake field is null	Rejected	-311	Ticket#%s unit stake is null	
This currency has been disabled in MTS.	Rejected	-312	Currency YYY is disabled in MTS	
The maximum number of selections allowed in MTS is 63. A ticket with more than 63 selections cannot be accepted.	Rejected	-313	Selections amount 99 is higher than max allowed of 63	
Selection is sent with a wrong format	Rejected	-314	Ticket %s selection '%s' has invalid line '%s', allowed values "	
Bet selection match ID contains a value which is not acceptable. Value must be >0.	Rejected	-315	Value in field selections.eventId should be positive number, Selection: <selection url="">, Match: - XXXXXXXX</selection>	



The value of the odds is minor than the minimum value allowed. Minimum value allowed is specified in the rejection message.	Rejected	-316	Odds value is too low. Found 0.01, allowed minimum is 1.01, Selection: <selection url="">, Match: <event url=""></event></selection>
The "bank" field was sent with an unacceptable value. Values allowed are either true or false	Rejected	-317	Invalid data in field bets.selectionRefs.banker. Found X, allowed values are [true, false], Selection Selection: <selection url="">, Match: <event url=""></event></selection>
Invalid value in field bookmakerID	Rejected	-319	Descrialization failure ~~> invalid value in field sender.bookmakerId
Related contingency: An outright market cannot be combined with an event which belongs to the same tournament.	Rejected	-320	Chosen events or markets cannot be combined as Tournaments are related <list of="" selection="" urls=""></list>
Related contingency: The bet contains selections which belong to the same market from the same event.	Rejected	-321	Bet contains duplicate selections on same Match: <selectionurl>, Match: <match id=""></match></selectionurl>
Related contingency: The bet contains more than one selection from the same event, but different market	Rejected	-322	Bet contains multiple selections on same Match: <selectionurl>, Match: <match id=""></match></selectionurl>
Related contingency: The bet contains more than one selection from the same team on tournaments which are correlated	Rejected	-323	Bet contains duplicate Team IDs in connected Tournaments
The number of possible combinations is different from the expected ones	Rejected	-324	"Number of generated combinations does not match expected"
Extended ways only allows a certain number of combinations, so that tickets don't become too big to process and store. Currently, it's 512 for extended ways.	Rejected	-334	"ticket#%s has too many combinations for extended ways; max %s"
Rejection in case internally MTS cannot generate bet out of JSON from Operator	Rejected	-335	Could not generate bets
Ticket contains negative bonus value	Rejected	-336	Bonus value negative -XXX
LiveOo	dds real time da	ta Exce	ptions
The event sent it not recognized by SR. Format of the value sent should be reviewed or ensure the event belongs to SR feed.	Rejected	-401	Match is not found in MTS, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
The event sent is recognized by SR, but it is not active.	Rejected	-402	Match is not active in MTS, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
The selection sent it not recognized by SR. Format of the value should be reviewed or ensure the selection belongs to BR feed.	Rejected	-403	Outcome is not found in MTS, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
The selection sent is recognized by SR, but not active.	Rejected	-404	Outcome is not active in MTS, Selection: Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
The market sent it not recognized by MTS. Format of the value sent should be reviewed or ensure the market belongs to BR feed.	Rejected	-405	Market is not found in MTS, Selection: Selection: <selectionurl>, Match: <match id<="" td=""></match></selectionurl>
Outright is not found in Line Service	Rejected	-406	Outright is not found in MTS, Selection: Selection: <selectionurl>, Outright: <outright id<="" td=""></outright></selectionurl>
Outright is not active in Line Service	Rejected	-407	Outright is not active in MTS, Selection:



			<selectionurl>, Outright: <outright id=""></outright></selectionurl>
Outright market is recognized by SR, but not active	Rejected	-408	Market is not active in Lines Provider, Selection: <selectionurl>, Outright: <outright id=""></outright></selectionurl>
Outright selection is not recognized by SR. Check the format of the value sent and ensure the outright selection belongs to BR feed.	Rejected	-409	Outcome "UNDER" is not found in Lines Provider, Selection: <selectionurl>, Outright: <outright ID></outright </selectionurl>
Outright selection is recognized by SR, but not active	Rejected	-410	Outcome !XXX is not active in Lines Provider, <selectionurl>, Outright: <outright id<="" td=""></outright></selectionurl>
Odds are not retrievable for the selection sent by the customer	Rejected	-420	Odds not found for selection in Lines Provider
The odds has changed. Odds in the bet is too high if compared with the current one. The bet cannot be accepted.	Rejected	-421	Odds X.YZ are too high, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
Market is not found in Line Service mapping	Rejected	-422	Market is not found, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
Market expired in case of basketball live total markets or markets which results change very fast.	Rejected	-423	Market/SOV expired in MTS. Selections: <selectionurl>, Match: <match id=""></match></selectionurl>
The bookmaker did not sign up for the alternative odds and the odds of the bet are different from the odds of the bookmaker (RTOP feed)	Rejected	-430	ticket#%s selection '%s' odds are different than bookmaker odds (odds: '%s', acceptable odds: '%s')", "(odds: %s, acceptable odds: %s)
The bookmaker did not sign up for the alternative odds and the odds of the bet are lower than the odds of the bookmaker (RTOP feed)	Rejected	-431	ticket#%s selection '%s' odds are lower than bookmaker odds (odds: '%s', acceptable odds: '%s')", "(odds: %s, acceptable odds: %s)

Table 13-2

Table 13-2				
MTS back office(Admin Console) Exceptions				
Bookmaker has MTS package disabled. Please contact OAM.	Rejected	-501	bookmakerId <bookmaker id=""> not active in MTS</bookmaker>	
Settings on limits of the bookmaker are not found in MTS. Please, check with account managers all settings have been properly provided to MTS.	Rejected	-502	Bookmaker settings not found for bookmakerId <bookmaker id=""></bookmaker>	
The bookmaker did not sign up for the alternative odds and the odds of the bet are lower than the odds of the bookmaker (RTOP feed)	Rejected	-503	ticket#%s selection '%s' odds are lower than bookmaker odds (odds: '%s', acceptable odds: '%s')", "(odds: %s, acceptable odds: %s)	
The event is recognized by MTS, but not active.	Rejected	-504	Match is not active in MTS, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>	
Market not found in MTS Console	Rejected	-505	Market NOT FOUND in MTS. Selection: <selectionurl>, Match: <match id=""></match></selectionurl>	
The market was recognized in MTS, but not active.	Rejected	-506	Market is not active in MTS, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>	
The Tournament was not recognized in MTS. Check format of the value sent.	Rejected	-507	Tournament <tornament name=""> is not found in MTS,</tornament>	



			Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
Tournament was recognized by MTS, but not active.	Rejected	-508	Tournament <tornament name=""> is not active in MTS, Selection: <selectionurl>, Match: <match id=""></match></selectionurl></tornament>
No limits specified in MTS for this bookmakerID or sub-bookmaker.	Rejected	-509	Limit settings for limitId <limitid> are not found for bookmakerId <bookmkaer id=""></bookmkaer></limitid>
Ticket payout is higher then allowed on Limit ID level	Rejected	-511	Payout is higher than the max payout for Limit ID <limitid>. Bet payout XXX, Max payout YYY</limitid>
Aggregated Ticket Payout is higher than allowed on Limit ID level	Rejected	-512	Payout is higher than the aggregated max payout for sourceID <sourceid>. Bet payout XXX, Aggregated Payout is YYY, Max Payout Limit is ZZZ</sourceid>
Rejections due to risk management(liabil	ity limits)		
In this case, the bet was rejected because of total liability breached. Total liability can have been breached at Global, Bookmaker or LimitID level.	Rejected	-701	Liability EUR XXX is over Total liability limit EUR YYY on Limit ID(Bookmaker or Global) level, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
In this case, the bet was rejected because the of bet liability breached (liability allowed for one bet). Bet liability can have been breached at Global, Bookmaker or LimitID level.	Rejected	-702	Liability EUR XXX is over Bet liability limit EUR YYY on Limit ID(Bookmaker or Global) level, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
In this case, the bet was rejected because the of the Customer Confindence Factor(CCF) of the punter/endCustomer	Rejected	-703	Liability EUR XXX is over Total liability limit EUR YYY on Customer level, Selection: lcoo:10/1/*/1, Match: 11901644
In case of Guaranteed return or surplus trading where the risk coverage is on MTS, the bet is rejected because the Total MTS available liability is breached.	Rejected	-721	Liability EUR XXX is over MTS Total liability limit on MTS level, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
In case of Guaranteed return or surplus trading where the risk coverage is on MTS, the bet is rejected because the bet MTS available liability is breached (bet factor applied to limit calculations).	Rejected	-722	Liability EUR XXX is over MTS Bet liability limit on MTS level, Selection: <selectionurl>, Match: <match id=""></match></selectionurl>
In case of Guaranteed return or surplus trading where the risk coverage is on MTS, the bet is rejected because the customer's available liability is breached (bet factor and CCF applied to limit calculations).	Rejected	-723	Liability EUR XXX is over MTS Bet liability limit on Customer level", <selectionurl>, Match: <match id=""></match></selectionurl>
The ticket is not compliant with JSON specification or data types are not compliant with ticket requirements	Rejected	-900	Ticket is unparsable
MTS internal component is down, unavailable or is not responding	Rejected	-993	One of examples: external service dist storage unavailable
The vhost sent is not compliant with the one registered for the bookmaker	Rejected	-994	bookmaker ' <bookmaker id="">' not authorized for vhost <vhost></vhost></bookmaker>
Gate node is disabled. May happen while scheduled maintenance with communication in advance	Rejected	-998	Gate node is disabled

Communication in



MTS internal system exception. Causa unknown.

Rejected -999 MTS internal system exception



14 Appendix E (MTS ticket version 2.2 vs 2.0)

14.1 MTS ticket version 2.2

- eventld: data type of eventld in the ticket JSON has been changed to string
- 2 **selections.id**: maximum length has been changed to 1000 from 100
- 3 **currency**: Currency string maximum length was increased to 4 characters only for mBTC
- totalCombinations: New optional JSON object totalCombinations was added in MTS ticket version 2.2. This object should be used in tickets where there are selections from the same event but different markets. If this object is in the ticket JSON then MTS will compare the number of combinations calculated by MTS against this value of totalCombinations. If this object is not in the ticket JSON then this comparison will be skipped.

4.1 MTS ticket response version 2.2

For cases when Alternative odds functionality is activate and ticket is accepted, new object is added to response: **autoAcceptedOdds**: Added new JSON object autoAcceptedOdds in the case where the Operator is using Alternative Odds functionality. This object contains following sub-objects:

- a. **selectionIndex**: index of selection from original ticket(enumeration starts from zero)
- b. requestedOdds: odds value from original ticket
- c. usedOdds: odds with which the ticket was accepted

For cases when ticket is rejected, rejection information is added on the ticket and bet levels. For more details it is recommended to check technical description 6.5 Ticket response, examples is 11 Appendix B Invalid Tickets and JSON schema 5.2 Ticket acceptance response JSON schema 2.2.



5 Appendix F (JSON schemas)

5.1 Ticket JSON schema 2.2

```
"$schema": "http://json-schema.org/draft-04/schema#",
"type": "object",
"additionalProperties": false,
"description": "Ticket version 2.2 schema",
"title": "Ticket container",
"required": [
 "ticket"
"properties": {
 "ticket": {
  "type": "object",
  "additionalProperties": false,
  "description": "Actual ticket being sent to Sportradar",
  "required": [
   "timestampUtc",
    "bets",
   "ticketId"
    "selections",
    "sender",
    "version"
   'properties": {
    "timestampUtc": {
     "type": "number",
     "description": "Timestamp of ticket placement (in UNIX time millis)",
     "minimum": 1,
     "maximum": 9223372036854775807
    "bets": {
     "type": "array",
     "description": "Collection of all bets",
     "items": {
      "type": "object",
      "additionalProperties": false,
      "required": [
       "stake",
       "selectedSystems"
       'properties": {
        "bonus": {
         "type": "object",
         "additionalProperties": false,
         "description": "Bonus of the bet (optional, default null)",
         "required": [
          "value"
         ],
         "properties": {
          "value": {
           "type": "number",
           "description": "Quantity multiplied by 10_000 and rounded to a long value",
           "minimum": 0
```



```
"type": {
             "type": ["string", "null"],
             "description": "Type (optional, default total)",
             "default": "total",
             "enum": [
               "total"
             ]
            "mode": {
             "type": ["string", "null"],
             "description": "Payout mode (optional, default all). Relevant mostly for system bets. All: all
bets must win for bonus to be paid out.",
             "default": "all",
             "enum": [
               "all"
          "stake": {
           "type": "object",
           "additionalProperties": false,
           "description": "Stake of the bet",
           "required": [
            "value"
           "properties": {
            "value": {
             "type": "number",
             "description": "Quantity multiplied by 10_000 and rounded to a long value",
             "minimum": 1
            "type": {
             "type": ["string", "null"],
             "description": "Type of stake (optional, default total)",
             "default": "total",
             "enum": [
               "total",
               "unit"
             ]
            }
          }
         "id": {
           "type": ["string", "null"],
           "description": "Bet id (optional)",
           "pattern": "^[0-9A-Za-z:\\-_]{1,128}$",
           "minLength": 1,
           "maxLength": 128
         "selectedSystems": {
           "type": "array",
           "default": "null",
           "description": "Array of all the systems (mandatory, [0] is not allowed, use [fold] instead)",
           "pattern":"(([1-9])([1-5][0-9]))(6[0-3]))(\\ *,\\ *([1-9])([1-5][0-9]))(6[0-3])))?)",
           "items": {
```



```
"type": "integer"
           "uniqueltems": true,
          "minItems": 1,
          "maxItems": 63
          selectionRefs": {
          "type": "array",
          "default": "null",
          "description": "Array of selection references which form the bet (optional, if missing then all
selections are used)",
           "items": {
            "type": "object",
            "additionalProperties": false,
            "description": "Array of selection references to form the bet (optional, if missing all selections
are taken)",
            "required": [
             "selectionIndex"
            'properties": {
              "selectionIndex": {
               "type": "integer",
               "description": "Selection index from 'ticket.selections' array (zero based)",
               "maximum": 62,
               "minimum": 0
             },
              "banker": {
              "description": "Flag if selection is banker (optional, default false)",
               "type": "boolean",
               "default": false
           }
          },
           "uniqueltems": true,
          "minItems": 1,
          "maxItems": 63
         "reofferRefId": {
          "type": ["string", "null"],
          "description": "Reoffer reference bet id",
          "minLength": 1,
          "maxLength": 128
         "sumOfWins": {
          "type": ["number", "null"],
          "description": "Sum of all wins for all generated combinations for this bet (in ticket currency,
used in validation)",
          "maximum": 9223372036854775807,
          "minimum": 1
       }
       "minItems": 1,
      "maxItems": 50
     "ticketId": {
       "type": "string",
       "description": "Unique ticket id (in the client's system)",
```



```
"minLength": 1,
      "maxLength": 128
     "selections": {
      "type": "array",
"description": "Array of all selections. Order is very important as they can be referenced by index in
'ticket.bets.selectionRefs'",
      "items": {
        "type": "object",
        "additionalProperties": false,
        "required": [
         "eventId",
         "id",
         "odds"
        'properties": {
         "eventId": {
          "type": "string"
          "description": "Betradar event (match or outright) id",
          "minLength": 1,
          "maxLength": 100
         "id": {
          "type": "string",
"description": "Selection id, should be composed according to specification",
          "minLength": 1,
          "maxLength": 1000
          ,,
odds": {
          "type": "integer",
          "description": "Odds multiplied by 10_000 and rounded to int value",
          "maximum": 1000000000,
          "minimum": 10000
         }
       }
      },
       "minItems": 1,
      "maxItems": 63
     "sender": {
       "type": "object",
       "additionalProperties": false,
       "description": "Identification and settings of the ticket sender",
       "required": [
        "currency",
        "bookmakerld",
        "limitld",
        "channel"
       "properties": {
        "currency": {
         "type": "string",
         "description": "3 or 4 letter currency code (4 letters only apply to mBTC)",
         "minLength": 3,
         "maxLength": 4
        "terminalld": {
         "type": ["string", "null"],
```



```
"description": "Terminal id (optional)",
                                           "pattern": "^[0-9A-Za-z\\-_]{1,36}$",
                                           "minLength": 1,
                                           "maxLength": 36
                                       "channel": {
                                           "type": "string",
                                           "description": "Communication channel",
                                           "enum": [
                                                 "internet",
                                                 "retail",
                                                 "terminal",
                                                 "mobile",
                                                 "phone",
                                                 "sms",
                                                  "callCentre"
                                      "shopId": {
                                          "type": ["string", "null"],
                                          "description": "Shop id (optional)"
                                           "pattern": "^[0-9A-Za-z\\-_]{1,36}$",
                                           "minLength": 1,
                                           "maxLength": 36
                                       "bookmakerId": {
                                           "type": "integer",
                                           "description": "Client's id (provided by Sportradar to the client)",
                                           "maximum": 2147483647,
                                           "minimum": 1
                                       "endCustomer": {
                                          "type": "object",
                                           "additionalProperties": false,
                                           "description": "Identification of the end user (customer)",
                                           "properties": {
                                                   "ip": {
                                                        "type": ["string", "null"],
                                                        "description": "End user's ip",
                                                        "pattern": "^(((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])\\.){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])
9])|(([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]
F]\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,5\}(:[0-9a-fA-F]\{1,4\})\{1,2\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\})\{1,3\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F]\{1,4\}:)\{1,4\}(:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F](:[0-9a-fA-F]
fA-F]\{1,4\}:)\{1,3\}(:[0-9a-fA-F]\{1,4\})\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,2\}(:[0-9a-fA-F]\{1,4\})\{1,5\}|[0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)\{1,4\}|([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F]\{1,4\}:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA-F][1,4]:)[([0-9a-fA
9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-
Z]\{1,\}|::(ffff(:0\{1,4\})\{0,1\}:)\{0,1\}((25[0-5]|(2[0-4]|1\{0,1\}[0-9])\{0,1\}[0-9])\\ \setminus \{3,3\}(25[0-5]|(2[0-4]|1\{0,1\}[0-9])\{0,1\}[0-9])\\ \setminus \{3,3\}(25[0-5]|(2[0-4]|1\{0,1\}[0-9])\\ \setminus \{3,3\}(25[0-5]|(2[0-4]|1\{0,1\}[0-9])\\ \setminus \{3,3\}(25[0-5]|(2[0-4]|1\{0,1\}[0-9])\\ \setminus \{3,3\}(2[0-4]|1\{0,1\}[0-9])\\ \setminus \{3,3\}(2[0-4]|1\{0,1\}[0-9])
9]){0,1}[0-9])|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9]){0,1}[0-9])\\.){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9])\\.)
9]){0,1}[0-9])))$"
                                                   "languageId": {
                                                        "type": ["string", "null"],
                                                        "description": "ISO 639-1 language code",
                                                        "minLength": 2,
                                                        "maxLength": 2
                                                   "deviceId": {
                                                        "type": ["string", "null"],
                                                        "description": "End user's device id",
                                                        "pattern": "^[0-9A-Za-z\\-_]{1,36}$",
```



```
"minLength": 1,
            "maxLength": 36
           "id": {
            "type": ["string", "null"],
            "description": "End user's unique id (in client's system)",
            "pattern": "^[0-9A-Za-z\\-_]{1,36}$",
            "minLength": 1,
            "maxLength": 36
           "confidence": {
           "type": ["number", "null"],
            "description": "Suggested CCF of the customer multiplied by 10 000 and rounded to a long
value",
            "maximum": 9223372036854775807,
            "minimum": 1
        "limitld": {
         "type": "integer",
         "description": "Client's limit id (provided by Sportradar to the client)",
         "maximum": 2147483647,
         "minimum": 1
      }
     reofferRefId": {
      "type": ["string", "null"],
      "description": "Reoffer reference ticket id",
      "minLength": 1,
      "maxLength": 128
     "altStakeRefId": {
      "type": ["string", "null"],
      "description": "Alternative stake reference ticket id",
      "minLength": 1,
      "maxLength": 128
     "version": {
      "type": "string",
      "description": "JSON format version (must be '2.2')",
      "pattern": "^(2\\.2)$", 
"minLength": 3,
      "maxLength": 3
     "testSource": {
      "type": "boolean"
     "oddsChange": {
      "type":["string", "null"],
      "description": "Accept change in odds (optional, default none) none: default behaviour, any: any
odds change accepted, higher: accept higher odds",
      "default": "none",
      "enum": [
       "none",
        "any",
        "higher"
```



```
]
},
"totalCombinations": {
  "type": ["integer", "null"],
  "description": "Expected total number of generated combinations on this ticket (optional, default null). If present is used to validate against actual number of generated combinations.",
  "minimum": 1
}
}
}
```

5.2 Ticket acceptance response JSON schema 2.2

```
"$schema": "http://json-schema.org/draft-04/schema#",
"description": "Ticket response 2.2 schema",
"required": [
 "version",
 "signature",
 "result",
 "exchangeRate"
"definitions": {
 "id": {
  "type": "string",
  "description": "Ticket/bet id",
  "minLength": 1,
  "maxLength": 128
 "selectionIndex": {
  "type": "integer",
  "description": "Selection index from 'ticket.selections' array (zero based)",
  "maximum": 62,
  "minimum": 0
 "reason": {
  "type": "object",
  "additionalProperties": false,
  "description": "Object carrying information about rejection cause",
  "required": [
   "code"
  "properties": {
    "code": {
     "type": "integer",
     "description": "Rejection code"
    "message": {
     "type": "string",
"description": "Rejection reason description"
  }
 "status": {
  "type": "string",
```



```
"description": "Acceptance status - accepted, rejected",
  "enum": [
   "rejected",
    "accepted"
"properties": {
 "result": {
  "type": "object",
  "additionalProperties": false,
  "required": [
    "status",
    "reason"
   'properties": {
    "ticketId": {
     "description": "External ticket id",
     "$ref": "#/definitions/id"
    "status": {
    "$ref": "#/definitions/status"
    "reason": {
     "$ref": "#/definitions/reason"
    "betDetails": {
     "type": "array",
"description": "Bet-level rejection details",
     "items": {
      "type": "object",
      "description": "Reason on bet level",
      "required": [
        "selectionIndex",
        "reason",
        "betId"
      "additionalProperties": false,
      "properties": {
        "betId": {
         "description": "Bet id",
         "$ref": "#/definitions/id"
       },
        "reason": {
         "$ref": "#/definitions/reason"
        "selectionDetails": {
         "type": "array",
         "description": "Per-selection rejection reasons",
         "items": {
           "type": "object",
           "description": "Reason on selection level",
           "additionalProperties": false,
           "properties": {
            "selectionIndex": {
             "$ref": "#/definitions/selectionIndex"
            "reason": {
```

reas



```
"$ref": "#/definitions/reason"
             rejectionInfo": {
              "type": "object",
              "description": "Rejection information on selection level",
              "additionalProperties": false,
              "properties": {
                "eventId": {
                "type": "string",
                "description": "Rejected selection's related Betradar event (match or outright) id",
                "minLength": 1,
                "maxLength": 100
               "id": {
                "type": "string",
                "description": "Rejected selection's related Selection id",
                "minLength": 1,
                "maxLength": 1000
                odds": {
                 "type": ["integer", "null"],
                "description": "Rejected selection's related Odds",
                "maximum": 1000000000,
                "minimum": 10000
         reoffer": {
          "type": "object",
          "description": "Bet reoffer details, mutually exclusive with alternativeStake",
          "required": [
           "type"
          ],
          "properties": {
            "stake": {
             "type": "number",
             "description": "Reoffer stake. Double multiplied by 10_000 and rounded to a long value",
             "minimum": 1
            "type": {
             "type": "string",
             "description": "Reoffer type, if auto then stake will be present. If manual you should wait for
reoffer stake over Reply channel",
             "enum": [
              "auto",
              "manual"
          }
         "alternativeStake": {
          "type": "object",
          "description": "Alternative stake, mutually exclusive with reoffer",
          "required": [
```



```
"stake"
         ],
          "properties": {
           "stake": {
            "type": "number",
            "description": "Alternative stake. Double multiplied by 10_000 and rounded to a long value",
            "minimum": 1
  "autoAcceptedOdds": {
   "type": "array",
"description": "Contains odds auto-acceptance information",
   "items": {
    "type": "object",
    "description": "Odds auto-acceptance selection information",
    "additionalProperties": false,
     "properties": {
      "selectionIndex": {
       "$ref": "#/definitions/selectionIndex"
      "requestedOdds": {
       "type": "integer",
       "description": "Odds with which the ticket was placed",
       "maximum": 1000000000,
       "minimum": 10000
      "usedOdds": {
       "type": "integer",
       "description": "Odds with which the ticket was accepted",
       "maximum": 1000000000,
       "minimum": 10000
   }
  "version": {
   "type": "string",
   "description": "JSON format version (must be '2.2')",
   "pattern": "^(2\\.2)$",
   "minLength": 3,
   "maxLength": 3
  "signature": {
   "type": "string",
   "description": "Response signature (previous betAcceptanceId)"
  "exchangeRate": {
   "type": "number",
   "description": "The exchange rate used when converting currencies to EUR. Double multiplied by
10 000 and rounded to a long value",
```



```
"minimum": 1
  }
 }
5.3
       Ticket cancellation JSON schema 2.2
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "additionalProperties": false,
  "description": "Ticket cancel version 2.2 schema",
  "title": "Ticket cancel container",
  "required": [
    "cancel"
  "properties": {
    "cancel": {
      "type": "object",
      "additionalProperties": false,
      "description": "Actual ticket cancel being sent to Sportradar",
      "required": [
        "timestampUtc",
        "ticketId",
        "sender",
        "code".
        "version"
      "properties": {
        "timestampUtc": {
          "type": "number",
          "description": "Timestamp of ticket cancel placement (in UNIX time millis)",
          "minimum": 1,
          "maximum": 9223372036854775807
        "ticketId": {
          "type": "string",
          "description": "Ticket id to cancel (in the client's system)",
          "minLength": 1,
          "maxLength": 128
        "sender": {
          "type": "object",
          "additionalProperties": false,
          "description": "Identification and settings of the ticket sender",
          "required": [
            "bookmakerId"
          "properties": {
            "bookmakerId": {
              "type": "integer",
              "description": "Client's id (provided by Sportradar to the client)", "maximum": 2147483647,
              "minimum": 1
         }
        "code": {
```



```
"type":"integer",
           "description": "Cancellation code"
        "cancelPercent":{
          "type": ["integer", "null"],
          "description": "Cancel percent. Quantity multiplied by 10_000 and rounded to a long value. Only
applicable if cancelling whole ticket. Max 100%.",
          "maximum":1000000,
          "minimum":1
        "betCancel": {
          "type": "array",
          "description": "Array of (betld, cancelPercent) pairs, if performing partial cancellation. Applicable
only if ticket-level cancel percent is null.",
          "items": {
    "type": "object",
            "required": [
               "betld"
             "properties": {
               "id": {
                "type": "string",
                "description": "Bet id",
                "pattern": "^[0-9A-Za-z:\\-_]{1,128}$", "minLength": 1,
                "maxLength": 128
               "cancelPercent":{
                "type": ["integer", "null"],
                "description": "Cancel percent. Quantity multiplied by 10 000 and rounded to a long value.
Max 100%.".
                "maximum":1000000,
                "minimum":1
              }
            }
          },
          "minItems": 1,
          "maxItems": 50
         version": {
          "type": "string",
          "description": "JSON format version (must be '2.2')", "pattern": "^(2\\.2)$", "minLength": 3,
          "maxLength": 3
        }
     }
   }
 }
```



5.4 Cancellation response JSON schema 2.2

```
{
 "$schema": "http://json-schema.org/draft-04/schema#",
 "description": "Ticket cancel response 2.2 schema",
 "required": [
  "version".
         "signature",
  "result"
],
"definitions": {
  "id": {
   "type": "string",
"description": "Ticket id",
    "minLength": 8,
    "maxLength": 128
   reason": {
    "type": "object",
    "additionalProperties": false,
    "description": "Object carrying information about cancellation response",
    "required": [
     "code"
    1,
    "properties": {
     "code": {
      "type": "integer",
      "description": "Cancellation code"
     "message": {
       "type": "string",
       "description": "Cancellation rejection reason description"
   }
   "status": {
    "type": "string",
    "description": "Cancellation status - cancelled, not_cancelled",
    "enum": [
     "not_cancelled",
     "cancelled"
   ]
  }
 },
 "properties": {
   "result": {
    "type": "object",
    "additionalProperties": false,
    "required": [
     "status",
     "reason"
     properties": {
     "ticketId": {
      "description": "Ticket id",
       "$ref": "#/definitions/id"
     },
```



```
"status": {
      "$ref": "#/definitions/status"
     "reason": {
      "$ref": "#/definitions/reason"
   }
  },
        "signature": {
   "type": "string",
   "description": "Response signature (previous betAcceptanceId)"
  },
"version": {
   "type": "string",
   "description": "JSON format version (must be '2.2')",
   "pattern": "^(2\\.2)$",
   "minLength": 3,
   "maxLength": 3
}
      Ticket Acknowledgment JSON schema 2.2
{
  "$schema":"http://json-schema.org/draft-04/schema#",
 "type": "object",
  "properties":{
    "sender":{
     "type": "object",
      "properties":{
       "bookmakerId":{
          "type":"integer"
       }
     },
     "required":[
       "bookmakerId"
     ]
    "ticketId":{
     "type":"string"
    "ticketStatus":{
     "type": "string",
     "enum":[
       "rejected",
       "accepted"
     ]
    code":{
     "type":"integer"
   },
"message":{
-""etrir
     "type":"string"
   },
"timestampUtc":{
     "type":"number"
   },
```



```
"version":{
     "type":"string",
"description":"JSON format version (must be '2.2')",
"pattern":"^(2\\.2)$",
      "maxLength":3
   }
  "required":[
    "sender",
    "ticketId",
          "ticketStatus",
    "timestampUtc",
    "version"
       Ticket cancellation acknowledgement JSON schema 2.2
5.6
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type":"object",
  "properties":{
    "sender":{
      "type":"object",
      "properties":{
        "bookmakerId":{
          "type":"integer"
        }
      "required":[
        "bookmakerld"
    "ticketId":{
      "type": "string"
    "ticketCancelStatus":{
      "type": "string",
      "enum":[
        "not_cancelled",
        "cancelled"
      ]
    },
    "code":{
      "type":"integer"
    "message":{
      "type":"string"
    "timestampUtc":{
      "type":"number"
     'version":{
      "type":"string",
"description":"JSON format version (must be '2.2')",
      "pattern":"^(2\\.2)$",
      "minLength":3,
```



```
"maxLength":3
 }
},
"required":[
  "sender",
  "ticketId",
  "ticketCancelStatus",
  "timestampUtc",
  "version"
]
     Ticket cashout JSON schema 2.2
"$schema": "http://json-schema.org/draft-04/schema#",
"type":"object",
"additionalProperties":false,
"description": Ticket cashout version 2.2 schema",
"title":"Ticket cashout",
"required":[
  "timestampUtc",
  "ticketId",
  "sender",
  "version"
"properties":{
  "timestampUtc":{
    "type":"number",
    "description": "Timestamp of ticket cashout placement (in UNIX time millis)",
    "minimum":1,
    "maximum":9223372036854775807
 },
"ticketId":{
    "type":"string",
"description":"Ticket id to cashout",
    "minLength":1,
    "maxLength":128
  "sender":{
    "type": "object",
    "additionalProperties":false,
    "description": "Identification and settings of the cashout sender",
    "required":[
      "bookmakerId"
    "properties":{
      "bookmakerId":{
        "type":"integer",
        "description": "Client's id (provided by Sportradar to the client)",
        "maximum":2147483647,
        "minimum":1
    }
   'cashoutStake":{
    "type": ["number", "null"],
```



```
"description": "Cashout stake in same currency as original ticket. Quantity multiplied by 10_000 and
rounded to a long value. Applicable only if performing full cashout.",
     "minimum":1
   },
    "cashoutPercent": {
     "type": ["integer", "null"],
     "description": "Cashout percent. Quantity multiplied by 10_000 and rounded to a long value. Percent
of ticket to cashout. Max 100%.",
     "maximum":1000000,
     "minimum":1
    "betCashout": {
     "type": "array",
     "description": "Array of (betld, cashoutStake) pairs, if performing partial cashout. Applicable only if
ticket-level cashout stake is null.",
     "items": {
       "type": "object",
       "required": [
         "betld",
         "cashoutStake"
        'properties": {
         "id": {
           "type": "string",
           "description": "Bet id",
           "pattern": "^[0-9A-Za-z:\\-_]{1,128}$",
           "minLength": 1,
           "maxLength": 128
          cashoutStake":
           "type": "number",
           "description": "Cashout stake in same currency as original ticket. Quantity multiplied by 10_000
and rounded to a long value.",
           "minimum":1
         "cashoutPercent": {
           "type": ["integer", "null"],
           "description": "Cashout percent. Quantity multiplied by 10_000 and rounded to a long value.
Percent of bet to cashout. Max 100%.",
           "maximum":1000000,
           "minimum":1
         }
       }
     "minItems": 1,
     "maxItems": 50
    'version":{
     "type": "string",
     "description": "JSON format version (must be '2.2')",
     "pattern":"^(2\\.2)$",
     "minLength":3,
     "maxLength":3
   }
 }
```



5.8 Ticket cashout response JSON schema 2.2

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "additionalProperties":false,
  "description": "Ticket cashout response 2.2 schema",
  "title": "Ticket cashout response",
  "required":[
    "version",
    "signature",
    "result"
  ],
"definitions":{
    "id":{
      "type":"string",
      "description": "Ticket id",
      "minLength":8,
      "maxLength":128
    },
    "reason":{
      "type": "object",
      "additionalProperties":false,
      "description": "Object carrying information about cashout response",
      "required":[
        "code"
      "properties":{
        "code":{
          "type": "integer",
          "description": "Cashout response code"
        "message":{
          "type": "string",
          "description": "Cashout rejection reason description"
      }
    "status":{
      "type":"string",
      "description": "Cashout status - accepted, rejected",
      "enum":[
        "accepted",
        "rejected"
      ]
    }
  "properties":{
    "result":{
      "type": object",
      "additionalProperties":false,
      "required":[
        "status",
"reason"
       'properties":{
        "ticketId":{
```



```
"description": "Ticket id",
          "$ref":"#/definitions/id"
       },
        "status":{
         "$ref":"#/definitions/status"
        reason":{
          "$ref":"#/definitions/reason"
     }
   },
"signature":{
      "type": "string",
     "description": "Response signature"
    "version":{
      "type":"string",
     "description": "JSON format version (must be '2.2')",
      "pattern":"^(2\\.2)$",
     "minLength":3,
     "maxLength":3
5.9
      Ticket re-offer JSON schema 2.2
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type":"object",
 "additionalProperties":false,
  "description": "Re-offer cancel version 2.2 schema",
  "title": "Re-offer cancel container",
  "required":[
   "timestampUtc",
   "ticketId",
   "sender",
    "version"
  "properties":{
   "timestampUtc":{
      "type":"number",
      "description": "Timestamp of re-offer cancel placement (in UNIX time millis)",
     "minimum":1,
     "maximum":9223372036854775807
    "ticketId":{
      "type": "string",
     "description": "Re-offer ticket id to cancel (in the client's system)",
      "minLength":1,
     "maxLength":50
   },
"sender":{
      "type":"object",
      "additionalProperties":false,
      "description": Identification and settings of the re-offer cancel sender",
      "required":[
        "bookmakerId"
```



```
],
    "properties":{
        "bookmakerId":{
            "type":"integer",
            "description":"Client's id (provided by Sportradar to the client)",
            "maximum":2147483647,
            "minimum":1
        }
    },
    "version":{
        "type":"string",
        "description":"JSON format version (must be '2.2')",
        "pattern":"^(2\\.2)$",
        "minLength":3,
        "maxLength":3
    }
}
```