

PG SOFT

Integration Document

Seamless Mode v2.4.4

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Revision History

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		Removed rurl parameter
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		Amended contents
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1 Overview

This document details the Integration of the operator wallet mode, also known as Seamless Wallet mode. This process details that PGSoft system will call the operator API in real time for every single transaction while the player is playing games to achieve the addition or deduction of the player's balance.

2 System Requirements

2.1 Game Dimensions

PGSoft games are responsive H5 and are displayed vertically, thus, minimum dimensions are required. Please refer to the following for game dimensions in iframe:

- Ideal dimensions : 1280 x 720
- Minimum dimensions : 540 x 960
- Maximum dimensions : 1080 x 2340

2.2 Hardware

	Android	iOS	Windows
Version of Operating System	5.0 or above	10.0 or above	7 or above
RAM	2GB	1GB	2GB
CPU	ARM Cortex-A9 or above	iPhone 6 or above	<ul style="list-style-type: none"> • 1 gigahertz (GHz) or faster • 32-bit (x86) or 64-bit (x64) processor • Dual core at least
Storage	2GB and above	2GB and above	20GB and above

2.3 Browser

- Microsoft Edge : version 79 or above
- Firefox : version 58 or above
- Google Chrome : version 59 or above
- Safari : version 11.1 or above
- *others* : browser based on Chromium that equal to Google Chrome 59 or above

2.4 Unsupported Browser

- Android : Firefox browser, CM browser
- iOS : CM browser
- Desktop : UC browser, Baidu browser, Quark browser, CM browser, IE browser

3 Launch Game

3.1 Game Authorization Modes

PGSoft supports three kinds of game launch authorization modes:

- **URL scheme** mode is for iOS, Android and browser, it uses the token parameters to authorize and login.
- **Web lobby** mode is a responsive web page which uses token parameters to authorize and login.
- **WebView** mode is applicable to all platforms, it is the Integration mode which embeds into the game interface and uses username and password to authorize players to login.

3.1.1 URL Scheme

URL scheme is an ordinary method for game launch. Player is required to login via the operator's website and launch the game through the operator's game lobby page

Note:

Operator is required to provide verifySession¹ API for operator's player session authentication

Request

API URL : {PgSoftPublicDomain}/{GameId}/index.html

HTTP method : GET

URL:

Parameter name	Data Type	Mandatory	Description
GameId	String	Yes	Unique identity for each game ²

URL Parameters:

Parameter name	Data Type	Mandatory	Description
btt	Integer	Yes	Game launch mode ³
ot	String	Yes	Unique identity of operator
ops	String	Yes	Token generated by operator system Note: <ul style="list-style-type: none"> • Max 200 characters • Please encode the value with UrlEncode to avoid unexpected error
l	String	No	Display language of game ⁴ Default: en
te	Integer	No	Time elapsed for game health reminder in seconds for operator (Reality check ⁵)
ri	Integer	No	Reminder interval for game health reminder in seconds (Reality check ⁶)
op	String	No	Custom parameter for operator, PGSoft API will include parameter value upon verifying operator's player session Note: Please encode the value with UrlEncode to avoid unexpected error

¹ Please refer to [Verify Session](#) section for more information

² Please get the latest list from PGSoft

³ Please refer to [Bet Types](#) section for complete list

⁴ Please refer to [Languages](#) section for complete list

⁵ Please refer to [Reality Check](#) section for more information

⁶ Please refer to [Reality Check](#) section for more information

f	String	No	Game exit URL Default: Redirect to PGSoft quit page Note: <ul style="list-style-type: none"> In Trial Game mode, value will be used for redirection of the Real Game prompt Assign value to <code>PGGameCloseUrl</code> to close the game window Please encode the value with <code>UrlEncode</code> to avoid unexpected errors
iwk	Integer	No	Device compatibility check ⁷ when launching the game 0: Normal mode (Default) 1: Skip compatibility check Note: <ul style="list-style-type: none"> Skipping compatibility check might cause WebGL error or WebGL crash This option is for IOS Web Kit & Safari only
oc	Integer	No	Screen orientation check ⁸ when launching the game 0: Skip screen orientation check 1: Normal mode (Default)

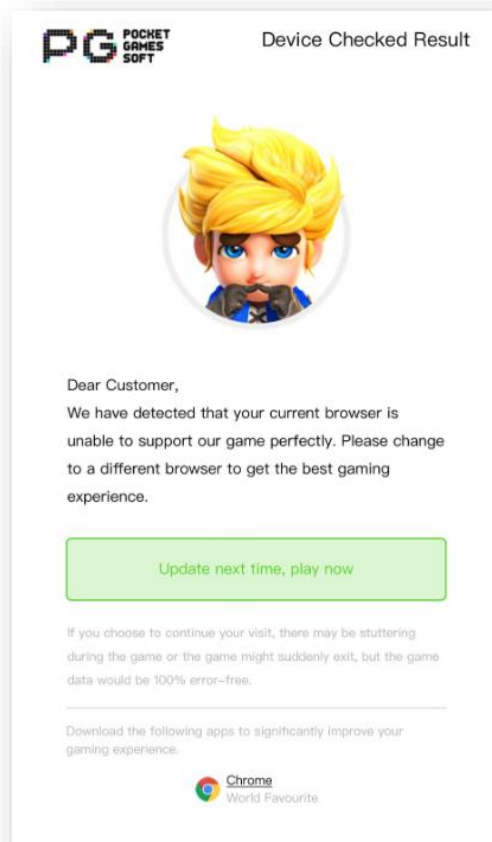
Example:

<https://m.pg-demo.com/1/index.html?ot=abcd&ops=12345-abcd-1234-abcd-12345&btt=1>

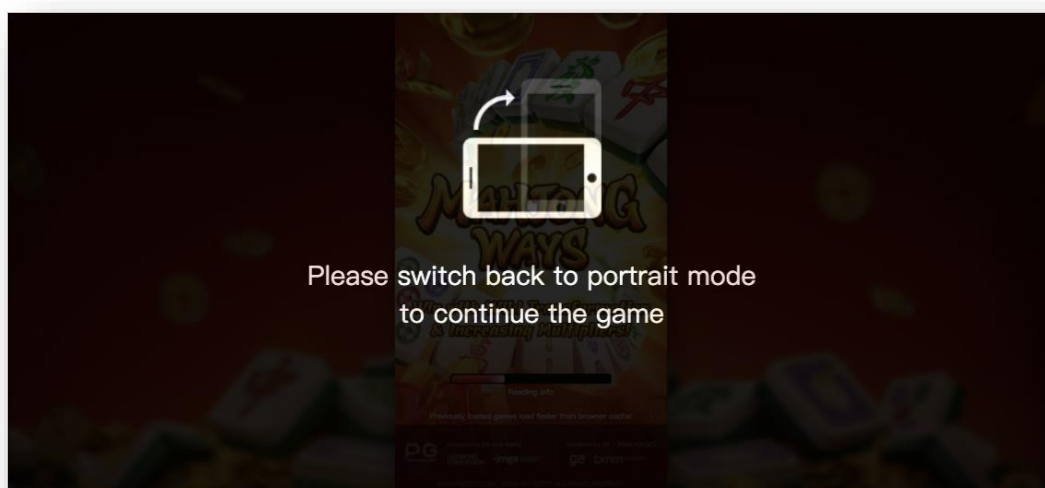
⁷ Please refer to screenshot

⁸ Please refer to screenshot

Screenshot



Device compatibility check



Screen orientation

3.1.1.1 Reality Check

In URL scheme⁹, operator may include “te” and “ri” parameter into the launch game URL for reality check.

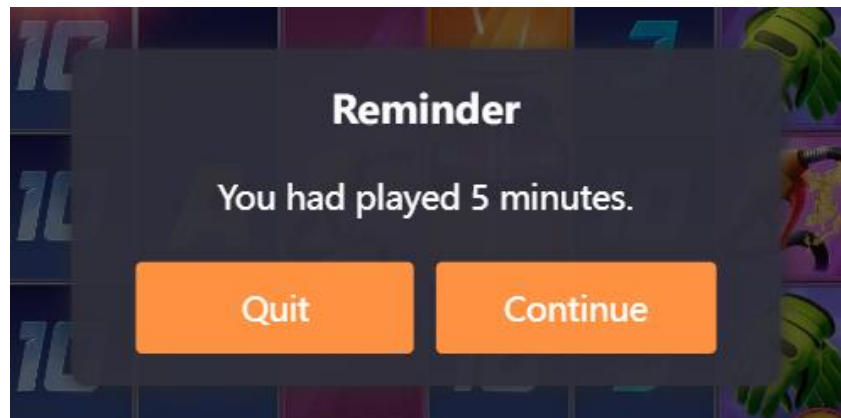
- **te** : Time used in the calculation for the first reality check in second(s)
- **ri** : Reality check interval in second(s)

Example:

ri=300&te=290

The first reality check reminder will show after 10 seconds (300s-290s=10s), and subsequent reminders will show up for every 5 minutes.

Screenshot



Health reminder

⁹ Please refer to [URL Scheme](#) section for more information

3.1.2 Web Lobby

PGSoft web lobby is a responsive **webpage** with all PGSoft games which allows player to play PGSoft games in one place. It provides a brand-new experience to the player using beautiful, attractive, informative, and effective UI design. We recommend operators to integrate PGSoft web lobby into their website.

Player is required to login via **the** operator's website and launch PGSoft games through PGSoft web lobby.

Note:

Operator is required to provide verifySession¹⁰ API for operator's player session authentication

Request

API URL : {PgSoftPublicDomain}/web-lobby/{panel_type}

HTTP method : GET

URL:

Parameter name	Data Type	Mandatory	Description
panel_type	String	Yes	Display panel of web lobby at first load [NO VALUE] : Default panel (Tournament)
			tournament/open : Tournament – Open for entry panel
			tournament/process: Tournament – In progress panel
			tournament/end : Tournament – Ended panel games : Show only game

¹⁰ Please refer to [Verify Session](#) section for more information

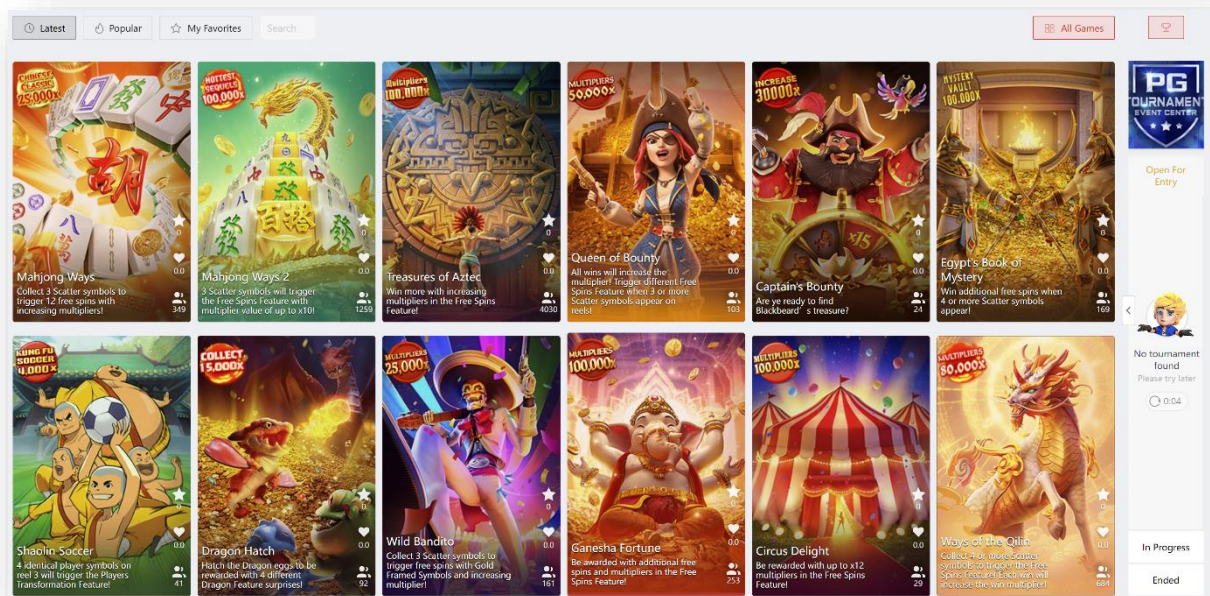
URL Parameters:

Parameter name	Data type	Mandatory	Description
ot	String	Yes	Unique identity of operator
ops	String	Yes	Token generated by operator system Note: <ul style="list-style-type: none"> • Max 200 characters • Please encode the value with <code>UrlEncode</code> to avoid unexpected error
l	String	No	Display language of web lobby ¹¹ Default: Player device language
width	Integer	No	Page width of web lobby Default: Responsive Value range: Value ≥ 930

Example:

https://public.pg-redirect.net/web-lobby/tournament/open/?ot=abc123&ops=abc123-abc123&l=en

Screenshot



Web Lobby

¹¹ Please refer to [Languages](#) section for complete list

3.1.3 WebView (For PGSoft Apps and PGSoft Lobby only)

WebView login provides a seamless login experience to players. It is applicable to all platforms; player is required to log in and launch the game through PGSoft game client.

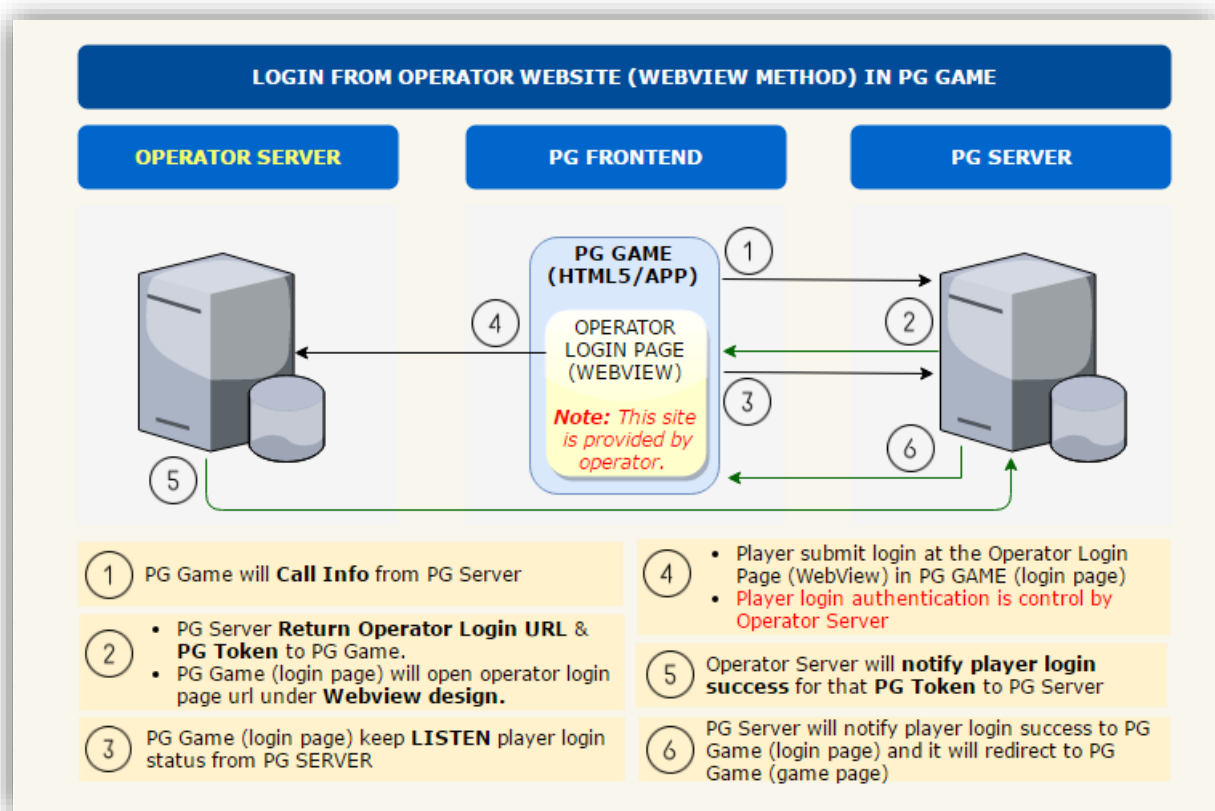
Note:

- WebView is only applicable for PGSoft Apps and PGSoft lobby only
- Operator is required to provide a login page (hosted in operator's own server) for players to login
- Operator is required to call PGSoft LoginGame API¹² when player has login successfully

Login Flow

Operator is required to provide a login page, and this login page will be embedded into PGSoft game client through WebView, to achieve a seamless login-effect. Player is required to login via operator's login page and launch the game through PGSoft game client.

Screenshot



WebView Login Flow Diagram

¹² Please refer to [Login Game](#) section for more information

1. Operator Login Page

PGSoft game client will open operator's login page and concatenate with token parameters.

Login Page URL : {OperatorLoginURL}

URL Parameters:

Parameter name	Data type	Mandatory	Description
pgsoft_token	String	Yes	Player token generated by PGSoft system

Example:

[https://loginPage.operatordomain.com/login?pgsoft_token=pg_token_xxx;](https://loginPage.operatordomain.com/login?pgsoft_token=pg_token_xxx)

2. Notify Successful Player Login

Player is required to login via operator's login page.

If player login verification is successful, operator is required to call PGSoft LoginGame API¹³ to notify PGSoft for the successful login.

¹³ Please refer to [Login Game](#) section for more information

Screenshot

Login Reload

< Back Log in

PG POCKET
GAMES
SOFT

Username

Password

Forgot Password?

Log in

Don't have an account? [Sign up](#)

WebView Login Page

3.2 Game Launch Restrictions

Multiple windows or multiple game launches are unsupported by PGSoft games. Players will be locked and kick out of games, and encounter errors when **the below** are detected:

S1302XXXXXXXX: Unsuccessful Game Authorization

S1309XXXXXXXX: Player account been suspended

S1305XXXXXXXX: Server request failure

When encountering the above errors, players may close the game windows and relaunch the game to unlock their player accounts:

S1302XXXXXXXX: Please relaunch the game

S1309XXXXXXXX: Player account will be unlocked automatically after 10 minutes, please relaunch the game after 10 minutes

S1305XXXXXXXX: Please relaunch the game

4 Game Launch JS Library

Operator is required to launch the game by using PGSoft JS library to provide the best gaming experience to players:

- Implementation of automatically adapting pop-up window according to the user's display size.
- PGSoft games are all designed to be displayed vertically, the pop-up window format is consistent with product design.
- Achieving the optimal gaming Interface height will allow users to feel visually comfortable, in line with usage habits.
- Presenting the best in-game visual quality to the players, providing the best gaming experience.

4.1 Avoid Browser Pop-up Blockers

The general rules that popup blockers will engage are:

- Invoked from JavaScript that is not invoked by direct user action
- Pop-up content are not from the same domain as the source

Operator is recommended to follow the instructions below to avoid browser pop-up blockers:

- Create a redirection page and redirect to game launch URL (URL scheme¹⁴)
- When players click the game launch button/link, use the PGSoft JS function (PGSDK.launchGame) and launch the redirection page.

¹⁴ Please refer to [URL Scheme](#) section for more information

4.2 Implementation

Step 1

Include the following line in the HTML <head> tags:

```
<script defer src="https://public.pg-redirect.net/sdk/main.min.js"></script>
```

Note:

Operator can self-host the JS library as well: <https://public.pg-redirect.net/sdk/main.min.js>

Step2

Operator is required to create a self-host redirection page to bypass popup blockers on web browsers.

Sample code of redirect page:

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<script>
    window.location.replace("https://m.pg-redirect.net/1/index.html?1=en&ott=1&ot=12345abcde&ops=abcde-12345-abcde-12345");
</script>
</head>
</html>
```

Step3

Use the following JS script to launch PGSoft games. Operator is required to create a self-host redirection page to bypass popup blockers on web browsers.

```
PGSDK.launchGame('{operator_redirection_URL}');
```

Parameters:

Parameter name	Data Type	Mandatory	Description
operator_redirection_URL	String	Yes	Operator self-host page which will redirect to game launch URL (URL scheme ¹⁵)

Example:

```
PGSDK.launchGame('https://[OperatorDomain]/redirect.html');
```

¹⁵ Please refer to [URL Scheme](#) section for more information

5 Integration API

5.1 Operator Provided API

5.1.1 API Formats

5.1.1.1 Request

The API uses HTTP form methods and a RESTful endpoint structure. PGSoft will send requests in the following content type:

Content-Type: `application/x-www-form-urlencoded`

5.1.1.2 Response

API returns JSON-formatted responses. For successful and failed API request, operator is required to return an API response with HTTP status code 200.

API uses global JSON response format for all API methods, with the following content type:

Content-Type: `application/json`

Parameters:

Parameter name	Data Type	Description
<code>data</code> ¹⁶	JSON Object	Response information for API methods
<code>error</code>	JSON Object	Error information when an error or exception occur

Example:

Success Response

```
{
  "data": {
    [API method response. JSON object format may vary depending on API methods]
  },
  "error": null,
}
```

Failed/Error Response

```
{
  "data": null,
  "error": {
    "code": "[Error code]",
    "message": "[Error message]"
  }
}
```

¹⁶ This field will show *null* value in error response

5.1.1.3 Hash Authentication (Optional)

We highly recommend that operator integrate with hash authentication to secure every request. If operator choose to integrate with hash authentication, PGSoft system will validate the hash information provided in the header fields in every request.

5.1.1.3.1 Header Fields

The following table describes the various request headers in the preceding example:

Component	Description
Host	API domain Example: apiexample.pgsoft.com
x-date	Current date (UTC) in YYYYMMDD format Example: 20190902
x-content-sha256	SHA256 hash of the request string body Example: 1700116101f424b9f6fc695b4dbaf2b7b0ee763ba1b3b53298e3069143ed46f1
Authorization	Combination of various components for requesting authentication Example: PWS-HMAC-SHA256 Credential=20190902/OPERATORTOKENEXAMPLE/pws/v1,SignedHeaders=host;x-content-sha256;x-date,Signature=d78220cf06ae85f9d1db11dad9c3fd926799619eab3d28574aadb8cf328cd7aa

Example

```
Host:
apiexample.pgsoft.com
x-date: 20190902
x-content-sha256:
1700116101f424b9f6fc695b4dbaf2b7b0ee763ba1b3b53298e3069143ed46f1
Authorization: PWS-HMAC-SHA256
Credential=20190902/OPERATORTOKENEXAMPLE/pws/v1,SignedHeaders=host;x-
-content-sha256;x-
date,Signature=d78220cf06ae85f9d1db11dad9c3fd926799619eab3d28574aadb
8cf328cd7aa
```

Header: x-content-sha256

Calculate a SHA256 hash of the request string body:

Example

POST body:

```
operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&count=5000&bet_
type=1&row_version=1346592723000
```

x-content-sha256:

```
1700116101f424b9f6fc695b4dbaf2b7b0ee763ba1b3b53298e3069143ed46f1
```

Header: Authentication

The following table describes the various components of the Authorization header value in the preceding example:

Component	Description
Credential	<p>Your access key ID and the scope information, which includes the date, operator token, and service that were used to calculate the signature.</p> <p>This string has the following form:</p> <pre>{x-date}/{operator_token}/pws/v1</pre> <p>Example:</p> <pre>20190902/OPERATOR_TOKEN_EXAMPLE/pws/v1</pre>
SignedHeaders	<p>A semicolon-separated list of request headers that you will use to compute the Signature. The list includes header names only, and the header names must be in lowercase.</p> <p>Fixed Value:</p> <pre>host;x-content-sha256;x-date</pre>
Signature	<p>The 256-bit signature expressed as 64 lowercase hexadecimal characters.</p> <p>Example:</p> <pre>d78220cf06ae85f9d1db11dad9c3fd926799619eab3d28574a adb8cf328cd7aa</pre>

To calculate a signature, you first need a string that includes *{host}{x-content-sha256}{x-date}* to sign. You will then calculate a HMAC-SHA256 hash of the string to sign by using a signing key:

```
hmac-sha256({salt}, {host}{x-content-sha256}{x-date})
```

Calculate a HMAC-SHA256 hash of the string body:

Example

Salt : SALTEXAMPLE
Host : apiexample.pgsoft.com
x-date : 20190902
x-content-sha256 :

1700116101f424b9f6fc695b4dbaf2b7b0ee763ba1b3b53298e3069143ed46f1

Signature:

d78220cf06ae85f9d1db11dad9c3fd926799619eab3d28574aadb8cf328cd7aa

5.1.2 Verify Session

PGSoft game system will call this operator API to check the player session token generated when players login to game.

Note:

- This API is required for URL scheme or web lobby authorization mode¹⁷
- New player will be created automatically

Request

API URL : {OperatorAPIDomain}/VerifySession

HTTP method : POST

URL Parameters:

Parameter name	Data Type	Mandatory	Description
trace_id	String	Yes	Unique identity (GUID) of the request Note: Please set the parameter value as GUID format

Body Parameters:

Parameter name	Data Type	Mandatory	Description
operator_token	String	Yes	Unique identity of operator
secret_key	String	Yes	Shared passphrase between PGSoft and operator
operator_player_session	String	Yes	Token generated by operator system Note: <ul style="list-style-type: none"> • Max 200 characters • Please decode the value with <code>UrlDecode</code> to avoid unexpected error
ip	String	No	Player IP address
custom_parameter	String	No	<i>operator_param</i> values in URL scheme ¹⁸
game_id	Integer	No	Unique identity of games

Example:

URL:

https://operator.api/VerifySession?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311

¹⁷ Please refer to [URL Scheme](#) and [Web Lobby](#) section for login flow and details

¹⁸ Please refer to [URL Scheme](#) section for more information

Body:

operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&operator_player_session=a2b3c4d5e6f7g8&ip=1.1.1.1&custom_parameter=operatorparam123&game_id=1

Validation

Operator is required to perform validations to the following parameters:

Parameter name	Description	Expected behaviour
operator_token	Make sure the parameter value is the same as the one PGSoft has provided.	Return error when not match
secret_key		
operator_player_session	Make sure the operator_player_session matches with the token generated in URL scheme ¹⁹	

Response

Body Parameters:

JSON Object

Parameter name	Data type	Mandatory	Description
player_name	String	Yes	Unique identity of players <ul style="list-style-type: none"> player name is not case sensitive Only alphabet, number, and "@", "-", "_" symbols are allowed Note: Max 50 characters
nickname	String	No	Nickname of player Note: Max 50 characters
currency	String	Yes	Currency of player

Example:

```
{
  "data": {
    "player_name": "player1",
    "nickname": "nickname",
    "currency": "USD"
  },
  "error": null
}
```

Error Response

Code	Message
1034	Invalid request
1200	Internal server error

¹⁹ Please refer to [URL Scheme](#) section for more information

5.1.3 Wallet Operation

5.1.3.1 Get Player Wallet

Operator is required to provide the total balance of the wallets that can be used in all PGSoft games. It includes total balance in the cash wallet.

Request

API URL : {OperatorAPIDomain}/Cash/Get
 HTTP method : POST

URL Parameters:

Parameter name	Data Type	Mandatory	Description
trace_id	String	Yes	Unique identity (GUID) of the request Note: This ID is for issue troubleshooting only. Please do not use this ID in duplicate request validation

Body Parameters:

Parameter name	Data Type	Mandatory	Description
operator_token	String	Yes	Unique identity of operator
secret_key	String	Yes	Shared passphrase between PGSoft and operator
player_name	String	Yes	Unique identity of players
operator_player_session	String	No	Token generated by operator's system when the game is launched (URL Scheme ²⁰)
game_id	Integer	No	Unique identity of games

Example:

URL:

https://operator.api/Cash/Get?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311

Body:

operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&player_name=player123&operator_player_session=a2b3c4d5e6f7g8&game_id=1

²⁰ Please refer to [URL Scheme](#) section for more information

Validation

Operator is required to perform validation to the following parameters:

Parameter name	Description	Expected behaviour
operator_token	Make sure the parameter value is the same as the one PGSoft has provided.	Return error when not match
secret_key		
player_name	Make sure the parameter value matches the given player's name in Verify Session ²¹	

Response

Body Parameters:

JSON Object

Parameter name	Data type	Mandatory	Description
currency_code	String	Yes	Currency of player
balance_amount	Decimal	Yes	Cash Balance of player Note: <ul style="list-style-type: none"> • Supports up to 2 decimal places • Extra decimal values will be truncated. Example: Game will show 11.12 if balance_amount value is 11.125
updated_time	Long	Yes	Updated time of player record (Unix time stamp in milliseconds)

Example:

```
{
  "data": {
    "currency_code": "CNY",
    "balance_amount": 11.12,
    "updated_time": 1530879795000
  },
  "error": null
}
```

²¹ Please refer to [Verify Session](#) section for more information

Error Response

Code	Message
1034	Invalid request
3005	Player wallet does not exist

5.1.3.2 Bet & Payout

PGSoft system will expect **idempotent operations** for all API operations. Operator is required to perform duplicate request checking for all incoming transaction requests.

PGSoft may resend the transaction due to network difficulties or other unforeseen circumstances. Please refer to the following for the precautions and correct process flow to handle duplicated requests:

- Operator is required to perform validation of operator_token and secret_key for every transaction request.
- **transaction_id** is the only unique identifier for every transaction request, including bet and payout
- In the case where a request with the same transaction_id is found and operator has proceeded the previous request, please ignore the duplicated request, and return the previous successful response for the duplicated request.
- In the case where a request with the same transaction_id is found and the previous request has failed, please retry, and return the corresponding results to PGSoft.
- In the case of a request with new transaction_id, operator may proceed to wallet addition or deduction accordingly, and return the successful response to PGSoft.

Game Disconnected

In the case where players are encountering errors and have been disconnected from the game, PGSoft system will automatically resume the game from its previous stage (including free spin, bonus, free game) without any alert on the next player login.

Player will see the same screen before the error happened and will be able to continue the game from the previous stage.

Failed Transaction

PGSoft games will stop and show errors when PGSoft receives the following error codes during bet transactions:

- 3004 PlayerNotFoundException
- 3005 WalletNotFoundException
- 3008 BonusNotFoundException
- 3009 FreeGameNotFoundException
- 3019 NotEnoughFreeGameException
- 3021 BetNotFoundException
- 3055 SnapshotNotFoundException
- 3059 BetLimitExceededException
- 3062 TransactionRolledBackException
- 3073 BetFailedException
- 3200 NotEnoughBalanceException
- 3201 NotEnoughBonusBalanceException
- 3202 NotEnoughCashBalanceException
- 3094 MaximumBetLimitReachErrorCode
- 3095 BalanceDecreasesLimitReachErrorCode

Operator should not cancel the pay-out transaction for a successful bet. System will always retry for a pay-out transaction until it is successful. Please contact PGSoft if you would like to cancel the pay-out transaction.

5.1.3.2.1 ~~Bet (Deprecated)~~

PGSoft system will call the operator API in real time while the player is betting to achieve the deduction of the player's balance.

Note:

This API method has been deprecated. It will still be functioning, but will remain in maintenance mode, which means PGSoft will no longer actively enhance this API or its capability with new features.

Operators are encouraged to move to new replacement API - Bet Payout API (TransferInOut)²², which provides more functionality and better performance.

Existing operators are required to maintain the old bet and payout API as previous pending bets will be resent using the old API.

Request

API URL : {OperatorAPIDomain}/Cash/TransferOut

HTTP method : POST

URL Parameters:

Parameter name	Data Type	Mandatory	Description
trace_id	String	Yes	Unique identity (GUID) of the request Note: This ID is for issue troubleshooting only. Please do not use this ID in duplicate request validation

Body Parameters:

Category	Parameter name	Data Type	Mandatory	Description
Authentication Information	operator_token	String	Yes	Unique identity of operator
	secret_key	String	Yes	Shared passphrase between PGSoft and operator
	operator_player_session	String	No	Token generated by operator system when game is launched (URL Scheme ²³)
General Bet Information	player_name	String	Yes	Unique identity of players
	game_id	Integer	Yes	Unique identity of games
	parent_bet_id	String	Yes	Unique identity of parent bet
	bet_id	String	Yes	Unique identity of child bet Note:

²² Please refer to [Bet Payout](#) section for more information

²³ Please refer to [URL Scheme](#) section for more information

				Unique key for bets
	currency_code	String	Yes	Currency of player
	platform	String	No	Platform of player ²⁴
	transfer_amount	Decimal	Yes	Bet amount. Note: PGSoft will send a bet request with <u>ZERO</u> transfer amount for free spins
	transaction_id	String	Yes	Unique identity of transaction. Format: {BetId}-{ParentBetId}- {transactionType}-{balanceId} Transaction type: 101: Payout 201: Bet 400: BonusToCash 403: FreeGameToCash
	wallet_type	String	No	To indicate the type of wallet for the current transaction. C: Cash B: Bonus G: FreeGame
	create_time	Long	Yes	Bet start time and bet last updated time (Unix time stamp in milliseconds) Note: updated_time is not equal to bet end time
	updated_time	Long	Yes	
Bet Indicator	is_validate_bet	Boolean	No	To indicate if the request is a transaction that has been resent for validation True: Resent transaction False: Normal transaction
	is_adjustment	Boolean	No	To indicate if the request is an adjustment or a normal transaction for a pending bet True: Adjustment False: Normal transaction

²⁴ Please refer to [Platform](#) section for more information

	is_parent_zero_stake	Boolean	No	To indicate if the request is having 0 bet amount for the first bet of the round. True: Having 0 bet amount for the first bet of the round (For Bacarrat Deluxe's free hands action) False: Having amount larger than 0 in the first bet of the round
	is_feature	Boolean	No	To indicate the spin type True: Feature spin False: Normal spin
	is_feature_buy	Boolean	No	To indicate the feature buy Note: Only applicable for feature buy games
	is_wager	Boolean	No	To indicate if the transaction is wager True: bet_amount > 0 False: bet_amount = 0
Free Game Information	free_game_transaction_id	String	No	Unique identity of free game. It can only be seen when Free Game has been assigned to the player Note: Only available for free game created using External API
	free_game_name	String	No	Given name of free game. It can only be seen when Free Game has been assigned to the player
	free_game_id	Integer	No	Unique identity of free game. It can only be seen when Free Game has been assigned to the player
	is_minus_count	Boolean	No	To indicate the spin type in free game True: Normal spin (Free game count is deducted) False: Free spin
B O N U S	bonus_transaction_id	String	No	Unique identity of bonus game.

				It can only be seen when Bonus Game has been assigned to the player Note: Only available for bonus game created using External API
	bonus_name	String	No	Given name of bonus game. It can only be seen when Bonus Game has been assigned to the player
	bonus_id	Integer	No	Unique identity of bonus game. It can only be seen when Bonus Game has been assigned to the player
	bonus_balance_amount	Decimal	No	Total number of bonus amount in bonus wallet. It can only be seen when the player chooses to complete the bonus with cash.
	bonus_ratio_amount	Decimal	No	Rollover amount the player needs to achieve in bonus game. It can only be seen when the player chooses to complete the bonus with cash.

Example:

URL:

https://operator.api/Cash/TransferOut?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311

Body:

```
operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&player_name=player123&operator_player_session=a2b3c4d5e6f7g8&game_id=1&parent_bet_id=123456&bet_id=123456&bet_type=1&currency_code=EUR&platform=1&create_time=1530879795000&updated_time=1530879795000&&transfer_amount=0.11&transaction_id=123456-123456-201-0&is_validate_bet=false&is_parent_zero_stake=false&is_feature=false
```

Validation

Operator is required to perform validation to the following parameters:

Parameter name	Description	Expected behaviour
player_name	Make sure the parameter value matches the given player information in Verify Session ²⁵	Return error when not match
currency_code		
operator_token		
secret_key		
operator_player_session	Make sure the operator_player_session matches the token generated in URL scheme ²⁶	Return successful response even with outdated operator_player_session
	Do not validate operator_player_session when is_validate_bet or is_adjustment parameter value is true Note: PGSoft system may resend request for validation or pending bet	
transfer_amount	Make sure there is an error response when there is insufficient balance	Return successful response with the correct cash balance
	Make sure player balance after deduction (amount with 2 decimal places) is correct	
	Make sure zero bet amount is accepted for parent bet Note: PGSoft system will send a bet request with <u>ZERO</u> transfer amount for Bacarrat Deluxe's free hands action	
	Make sure zero bet amount is accepted for child bet Note: PGSoft system will send a bet request with <u>ZERO</u> transfer amount for free spin	
	Ignore wallet operation for duplicated requests (requests with the same transaction_id)	
	Proceed wallet operation for request with the same game hand (requests with the same parent_bet_id but different bet_id)	
transaction_id		
parent_bet_id		
bet_id		

²⁵ Please refer to [Verify Session](#) section for more information

²⁶ Please refer to [URL Scheme](#) section for more information

Response

Body Parameters:

JSON Object

Parameter name	Data type	Mandatory	Description
currency_code	String	Yes	Currency of player
balance_amount	Decimal	Yes	Cash Balance of player Note: <ul style="list-style-type: none"> • Support up to 2 decimal places • Extra decimal values will be truncated. Example: Game will show 11.12 if balance_amount value is 11.125
updated_time	Long	Yes	Updated time of transaction (Unix time stamp in milliseconds) Note: Response updated_time must be the same as the requested updated_time for transaction reference

Example:

```
{
  "data": {
    "currency_code": "CNY",
    "balance_amount": 11.12,
    "updated_time": 1530879795000
  },
  "error": null
}
```

Error Response

Code	Message
3004	Player does not exist
3005	Player wallet does not exist
3021	Bet does not exist
3033	Bet failed
3202	Insufficient player balance

5.1.3.2.2 ~~Payout (Deprecated)~~

PGSoft system will call operator API in real time while the player is betting to achieve the addition of the player's balance.

Note:

This API method has been deprecated. It will still be functioning, but will remain in maintenance mode, which means PGSoft will no longer actively enhance this API or its capability with new features.

Operators are encouraged to move to new replacement API - Bet Payout API (TransferInOut)²⁷, which provides more functionality and better performance.

Existing operators are required to maintain the old bet and payout API as previous pending bets will be resent using the old API.

Request

API URL : {OperatorAPIDomain}/Cash/TransferIn

HTTP method : POST

URL Parameters:

Parameter name	Data Type	Mandatory	Description
trace_id	String	Yes	Unique identity (GUID) of the request Note: This ID is for issue troubleshooting only. Please do not use this ID in duplicate request validation

Body Parameters:

Category	Parameter name	Data Type	Mandatory	Description
Authentication Information	operator_token	String	Yes	Unique identity of operator
	secret_key	String	Yes	Shared passphrase between PGSoft and operator
	operator_player_session	String	No	Token generated by operator system when game is launched (URL Scheme ²⁸)
General Bet Information	player_name	String	Yes	Unique identity of players
	game_id	Integer	Yes	Unique identity of games
	parent_bet_id	String	Yes	Unique identity of parent bet
	bet_id	String	Yes	Unique identity of child bet Note:

²⁷ Please refer to [Bet Payout](#) section for more information

²⁸ Please refer to [URL Scheme](#) section for more information

				Unique key for bets
	currency_code	String	Yes	Currency of player
	platform	String	No	Platform of player ²⁹
	transfer_amount	Decimal	Yes	Payout amount. Note: PGSoft will send a payout request with <u>ZERO</u> transfer amount for the following: <ul style="list-style-type: none"> • Every action (Example: split card) performed by player in card game • Special feature in some slot games
	transaction_id	String	Yes	Unique identity of transaction. Format: {BetId}-{ParentBetId}-{transactionType}-{balanceId} Transaction type: 101: Payout 201: Bet 400: BonusToCash 403: FreeGameToCash
	bet_transaction_id	String	No	Unique identity of bet transaction (transfer out). Format: {BetId}-{ParentBetId}-{transactionType}-{balanceId} Transaction type: 101: Payout 201: Bet 400: BonusToCash 403: FreeGameToCash
	wallet_type	String	No	To indicate the type of wallet for the current transaction. C: Cash B: Bonus G: FreeGame
	create_time	Long	Yes	

²⁹ Please refer to [Platform](#) section for more information

	updated_time	Long	Yes	Bet start time and bet last updated time (Unix time stamp in milliseconds) Note: updated_time is not equal to bet end time
Bet Indicator	is_validate_bet	Boolean	No	To indicate if the request is a transaction that has been resent for validation True: Resent transaction False: Normal transaction
	is_adjustment	Boolean	No	To indicate if the request is an adjusted or normal transaction for a pending bet True: Adjusted transaction False: Normal transaction
	is_parent_zero_stake	Boolean	No	To indicate if the request is having 0 bet amount for the first bet of the round. True: Having 0 bet amount for the first bet of the round (For Bacarrat Deluxe's free hands action) False: Having amount larger than 0 in the first bet of the round
	is_feature	Boolean	No	To indicate the spin type True: Feature spin False: Normal spin
	is_wager	Boolean	No	To indicate if the transaction is wager True: bet_amount > 0 False: bet_amount = 0
	is_end_round	Boolean	No	To indicate if the current game hand has ended
	free_game_transaction_id	String	No	Unique identity of free game. It can only be seen when Free Game has been assigned to the player Note:

				Only available for free game created using External API
	free_game_name	String	No	Given name of free game. It can only be seen when Free Game has been assigned to the player
	free_game_id	Integer	No	Unique identity of free game. It can only be seen when Free Game has been assigned to the player
	is_minus_count	Boolean	No	To indicate the spin type in free game True: Normal spin (Free game count is deducted) False: Free spin
Bonus Game Information	bonus_transaction_id	String	No	Unique identity of bonus game. It can only be seen when bonus game has been assigned to the player Note: Only available for bonus game created using External API
	bonus_name	String	No	Given name of bonus game. It can only be seen when bonus game has been assigned to the player
	bonus_id	Integer	No	Unique identity of bonus game. It can only be seen when bonus game has been assigned to the player
	bonus_balance_amount	Decimal	No	Total number of bonus amount in bonus wallet. It can only be seen when the player chooses to complete the bonus game with cash.
	bonus_ratio_amount	Decimal	No	Rollover amount the player needs to achieve in bonus game. It can only be seen when the player chooses to complete the bonus game with cash.

Example:

URL:

https://operator.api/Cash/TransferIn?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311

Body:

operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&player_name=player123&operator_player_session=a2b3c4d5e6f7g8&game_id=1&parent_bet_id=123456&bet_id=123456&bet_type=1¤cy_code=EUR&platform=1&create_time=1530879795000&updated_time=1530879795000&&transfer_amount=0.11&transaction_id=123456-123456-101-0&is_validate_bet=false&is_parent_zero_stake=false&is_feature=false&is_end_round=true

Validation

Operator is required to perform validation to the following parameters:

Parameter name	Description	Expected behaviour
player_name	Make sure the parameter value matches the given player information in Verify Session ³⁰	Return error when not match
currency_code		
operator_token		
secret_key		
operator_player_session	Make sure the operator_player_session matches the token generated in URL scheme ³¹	Return successful response even with outdated operator_player_session
	Do not validate operator_player_session when is_validate_bet or is_adjustment parameter value is true. Note: PGSoft system may resend request for validation or pending bet	
transfer_amount	Make sure player balance after addition (amount with 2 decimal places) is correct	Return successful response with correct balance
	Make sure zero payout amount is accepted Note: PGSoft may send a payout request with <u>ZERO</u> transfer amount for the following: <ul style="list-style-type: none"> Specific actions (Example: split card) performed by player in card game Special feature in some slot games 	
	Make sure payout without bet request is accepted Note: PGSoft may send a payout request <u>WITHOUT</u> bet request for the following: <ul style="list-style-type: none"> When player perform “convert to cash” action in the bonus game When player perform “convert to cash” action in the free game 	
transaction_id	Ignore wallet operation for duplicated requests (request with same transaction_id)	

³⁰ Please refer to [Verify Session](#) section for more information

³¹ Please refer to [URL Scheme](#) section for more information

Response

Body Parameters:

JSON Object

Parameter name	Data type	Mandatory	Description
currency_code	String	Yes	Currency of player
balance_amount	Decimal	Yes	Cash Balance of player Note: <ul style="list-style-type: none"> • Support up to 2 decimal places • Extra decimal values will be truncated. Example: Game will show 11.12 if balance_amount value is 11.125
updated_time	Long	Yes	Updated time of transaction (Unix time stamp in milliseconds) Note: Response updated_time must same with request updated_time for transaction reference

Example:

```
{
  "data": {
    "currency_code": "CNY",
    "balance_amount": 11.12,
    "updated_time": 1530879795000
  },
  "error": null
}
```

Error Response

Code	Message
3004	Player does not exist
3005	Player wallet does not exist
3021	Bet does not exist
3034	Payout failed

5.1.3.2.3 Bet Payout

This transaction request is the combination of both bet and payout within a single request. PGSoft system will call operator API in real time while the player is betting to achieve either the addition or deduction of the player's balance.

Request

API URL : {OperatorAPIDomain}/Cash/TransferInOut

HTTP method : POST

URL Parameters:

Parameter name	Data Type	Mandatory	Description
trace_id	String	Yes	Unique identity (GUID) of the request Note: Please set the parameter value as GUID format

Body Parameters:

Category	Parameter name	Data Type	Mandatory	Description
Authentication Information	operator_token	String	Yes	Unique identity of operator
	secret_key	String	Yes	Shared passphrase between PGSoft and operator
	operator_player_session	String	No	Token generated by operator system when game is launched (URL Scheme ³²)
General Bet Information	player_name	String	Yes	Unique identity of players
	game_id	Integer	Yes	Unique identity of games
	parent_bet_id	String	Yes	Unique identity of parent bet
	bet_id	String	Yes	Unique identity of child bet Note: Unique key for bets
	currency_code	String	Yes	Currency of player
	bet_amount	Decimal	Yes	Bet amount. Note: PGSoft will send a bet request with <u>ZERO</u> transfer amount for free spins
	win_amount	Decimal	Yes	Win amount. Note:

³² Please refer to [URL Scheme](#) section for more information

Bet Indicat or				PGSoft will send a payout request with <u>ZERO</u> transfer amount for the following: <ul style="list-style-type: none"> • Every action (Example: split card) performed by player in card games • Special feature in some slot games
	transfer_amount	Decimal	Yes	Player Win Loss amount Note: The amount can be positive or negative Negative: Balance deduction Positive: Balance addition
	transaction_id	String	Yes	Unique identity of transaction. Format: {BetId}-{ParentBetId}- {transactionType}-{balanceId} Transaction type: 106: BetPayout 400: BonusToCash 403: FreeGameToCash
	wallet_type	String	No	To indicate the type of wallet for the current transaction. C: Cash B: Bonus G: FreeGame
	bet_type	Integer	Yes	Bet types of bet record: 1: Real game
	platform	String	No	Platform of player ³³
	create_time	Long	Yes	Bet start time and bet last updated time (Unix time stamp in milliseconds)
	updated_time	Long	Yes	Note: updated_time is not equal to bet end time
	is_validate_bet	Boolean	No	To indicate if the request is a transaction that has been resent for validation

³³ Please refer to [Platform](#) section for more information

				True: Resent transaction False: Normal transaction
	is_adjustment	Boolean	No	To indicate if the request is an adjustment or a normal transaction for a pending bet True: Adjustment False: Normal transaction
	is_parent_zero_stake	Boolean	No	To indicate if the request is having 0 bet amount for the first bet of the round. True: Having 0 bet amount for the first bet of the round (For Bacarrat Deluxe's free hands action) False: Having amount larger than 0 in the first bet of the round
	is_feature	Boolean	No	To indicate the spin type True: Feature spin False: Normal spin
	is_feature_buy	Boolean	No	To indicate the feature buy Note: Only applicable for feature buy games
	is_wager	Boolean	No	To indicate if the transaction is wager True: bet_amount > 0 False: bet_amount = 0
	is_end_round	Boolean	No	To indicate if the current game hand has ended
Free Game Information	free_game_transaction_id	String	No	Unique identity of free game. It can only be seen when Free Game has been assigned to the player Note: Only available for free game created using External API
	free_game_name	String	No	Given name of free game. It can only be seen when Free Game has been assigned to the player
	free_game_id	Integer	No	Unique identity of free game.

				It can only be seen when Free Game has been assigned to the player
	is_minus_count	Boolean	No	To indicate the spin type in free game True: Normal spin (Free game count is deducted) False: Free spin
Bonus Game Information	bonus_transaction_id	String	No	Unique identity of bonus game. It can only be seen when Bonus Game has been assigned to the player Note: Only available for bonus game created using External API
	bonus_name	String	No	Given name of bonus game. It can only be seen when Bonus Game has been assigned to the player
	bonus_id	Integer	No	Unique identity of bonus game. It can only be seen when Bonus Game has been assigned to the player
	bonus_balance_amount	Decimal	No	Total number of bonus amount in bonus wallet. It can only be seen when the player chooses to complete the bonus with cash.
	bonus_ratio_amount	Decimal	No	Rollover amount the player needs to achieve in bonus game. It can only be seen when the player chooses to complete the bonus with cash.

Example:

URL:

https://operator.api/Cash/TransferInOut?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311

Body:

operator_token=12345&secret_key=bfvfdb&player_name=player123&operator_player_session=vcbcvbcbvcb&game_id=1&parent_bet_id=123456&bet_id=123456&bet_type=1¤cy_code=EUR&create_time=1530879795000&updated_time=1530879795000&bet_amount=100&win_amount=40&transfer_amount=-60&transaction_id=123456-123456-106-0&wallet_type=C&is_feature=False&is_minus_count=False

Validation

Operator is required to perform validation to the following parameters:

Parameter name	Description	Expected behaviour
player_name	Make sure the parameter value matches the given player information in Verify Session ³⁴	Return error when not match
currency_code		
operator_token		
secret_key		
operator_player_session	Make sure the operator_player_session matches the token generated in URL scheme ³⁵	Return successful response even with outdated operator_player_session
	Do not validate operator_player_session when is_validate_bet or is_adjustment parameter value is true Note: PGSoft system may resend request for validation or pending bet	
bet_amount	Make sure there is an error response when there is insufficient balance (bet_amount)	Return error response 3202
transfer_amount	Make sure there is an error response when there is insufficient balance (negative transfer_amount)	
	Make sure player balance after transaction (amount with 2 decimal places) is correct	Return successful response with the correct cash balance
	Make sure zero transfer amount is accepted for parent bet Note: PGSoft system will send a request with <u>ZERO</u> transfer amount for Bacarrat Deluxe's free hands action	

³⁴ Please refer to [Verify Session](#) section for more information

³⁵ Please refer to [URL Scheme](#) section for more information

	Make sure zero transfer amount is accepted for child bet Note: PGSoft system will send a request with <u>ZERO</u> transfer amount for free spin	
transaction_id	Ignore wallet operation for duplicated requests (requests with the same transaction_id)	
parent_bet_id	Proceed wallet operation for request with the same game hand (requests with the same parent_bet_id but different bet_id)	
bet_id		

Response

Body Parameters:
JSON Object

Parameter name	Data type	Mandatory	Description
currency_code	String	Yes	Currency of player
balance_amount	Decimal	Yes	Cash Balance of player Note: <ul style="list-style-type: none"> • Support up to 2 decimal places • Extra decimal values will be truncated. Example: Game will show 11.12 if balance_amount value is 11.125
updated_time	Long	Yes	Updated time of transaction (Unix time stamp in milliseconds) Note: Response updated_time must be the same as the requested updated_time for transaction reference

Example:

```
{
  "data": {
    "currency_code": "CNY",
    "balance_amount": 11.12,
    "updated_time": 1530879795000
  },
  "error": null
}
```

Error Response

Code	Message
3004	Player does not exist
3005	Player wallet does not exist
3021	Bet does not exist
3033	Bet failed
3202	Insufficient player balance

5.1.3.3 Balance Adjustment

PGSoft will use this API to perform player's balance addition or deduction. This API can be used for certain events, such as Cash Tournament.

Request

API URL : {OperatorAPIDomain}/Cash/Adjustment

HTTP method : POST

Body parameters:

Category	Parameter name	Data Type	Mandatory	Description
Authentication Information	operator_token	String	Yes	Unique identity of operator
	secret_key	String	Yes	Shared passphrase between PGSoft and operator
General Information	player_name	String	Yes	Unique identity of players
	currency_code	String	Yes	Currency of player
	transfer_amount	Decimal	Yes	Adjustment Amount Negative amount: Balance deduction Positive amount: Balance addition
	adjustment_id	String	Yes	Reference ID for Adjustment
	adjustment_transaction_id	String	Yes	Unique identity of transaction Note: Operator should use this parameter to check if the request is duplicated and implement idempotent operation
	adjustment_time	Long	Yes	Adjustment time (Unix time stamp in milliseconds)
	transaction_type	String	Yes	Adjustment source: 900: External Adjustment 901: Tournament Adjustment
	bet_type	Integer	Yes	Game launch mode ³⁶

Example:

```
operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&player_name=player123&bet_type=1&currency_code=CN¥&transfer_amount=100.00&adjustment_time=1530879795000&adjustment_id=ABC1530879&adjustment_transactionid=ABC1530879-900&transaction_type=900
```

³⁶ Please refer [Bet Types](#) for more info

Validation

Operator is required to perform validation to the following parameters:

Parameter name	Description	Expected behaviour
player_name	Make sure the parameter value matches the given player information in Verify Session ³⁷ Make sure the parameter value is the same as the one PGSoft has provided.	Return error when not match
currency_code		
operator_token		
secret_key		
transfer_amount	Make sure player balance after adjustment (amount with 2 decimal places) is correct	Return successful response with correct balance
	Make sure negative amount is accepted	
	Make sure the adjustment performs correctly and accordingly	
	<ul style="list-style-type: none"> Negative: Balance deduction Positive: Balance addition 	
adjustment_transaction_id	Ignore wallet operation for duplicated requests (Request with same transaction_id)	

³⁷ Please refer to [Verify Session](#) section for more information

Response

Body Parameters:

JSON Object

Parameter name	Data type	Mandatory	Description
adjust_amount	Decimal	Yes	Adjusted Amount Note: This amount is for reference purpose. PGSoft will not validate it.
balance_before	Decimal	Yes	Player balance before adjustment (balance_before) & Player balance after adjustment (balance_after) Note: <ul style="list-style-type: none"> • Only support up to 2 decimals • Extra decimal values will be truncated. Example: Game will show 11.12 if balance_amount value is 11.125
balance_after	Decimal	Yes	
updated_time	Long	Yes	Updated time of transaction (Unix time stamp in milliseconds)

Example:

```
{
  "data": {
    "adjust_amount": 100.00,
    "balance_before": 0.00,
    "balance_after": 100.00,
    "updated_time": 1530879795000
  },
  "error": null
}
```

Error Response

Code	Message
3004	Player does not exist
3005	Player wallet does not exist

5.1.3.4 Update Bet Details

PGSoft game system will call this operator API to update the operator's latest bet end time when the bet is successful in PGSoft system.

Request

API URL : {OperatorAPIDomain}/Cash/UpdateBetDetail

HTTP method : POST

Body Parameters:

Parameter name	Data Type	Mandatory	Description
operator_token	String	Yes	Unique identity of operator
secret_key	String	Yes	Shared passphrase between PGSoft and operator
bet_details	Json Array	Yes	List of bet ID with bet end time
updated_time	Long	Yes	API request time (Unix time stamp in milliseconds)

Parameter: bet_details

Parameter name	Data Type	Mandatory	Description
bet_id	String	Yes	Unique identity of child bet Note: Unique key for bets
end_time	Long	Yes	Bet end time (Unix time stamp in milliseconds)

Example:

operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&bet_details=[{"bet_id":"1456887894","end_time":"1644476958000"}, {"bet_id":"1456887895","end_time":"1644476958000"}]&updated_time=1645414794000

Validation

Operator is required to perform validation to the following parameters:

Parameter name	Description	Expected behaviour
operator_token	Make sure the parameter value is the same as the one PGSoft has provided.	Return error when not match
secret_key		

Response

Body Parameters:

JSON Object

Parameter name	Data Type	Mandatory	Description
is_success	Boolean	Yes	To indicate if the request is received True: Received False: Not Received

Example:

```
"data": {
  |   "is_success": true
  },
"error": null
```

5.2 PGSoft Provided API

5.2.1 API Formats

5.2.1.1 Request

The API uses HTTP form methods and a RESTful endpoint structure. Operator is required to send requests in the following content type:

Content-Type: `application/x-www-form-urlencoded`

5.2.1.2 Response

API returns JSON-formatted responses. For successful and failed API requests, PGSoft system will return an API response with HTTP status code 200.

API uses global JSON response format for all API methods, with the following content type:

Content-Type: `application/json`

Parameters:

Parameter name	Data Type	Description
<code>data</code> ³⁸	JSON Object	Response information for API methods
<code>error</code> ³⁹	JSON Object	Error information when an error or exception occur

Example:

Successful Response

```
{
  "data": {
    [API method response. JSON object format may vary depending on API methods]
  },
  "error": null,
}
```

Failed/Error Response

```
{
  "data": null,
  "error": {
    "code": "[Error code]",
    "message": "[Error message]"
  }
}
```

³⁸ This field will show *null* value in error response

³⁹ This field will show *null* value in success API response. Please refer to [Error codes](#) section for error response format

5.2.2 Login Game (For WebView Game Launch Only)

To notify PGSoft server that the player's login has been successfully authorized.

Note:

- This API is required for WebView authorization mode⁴⁰
- New player will be created automatically

Request

API URL : {PgSoftAPIDomain}/Login/ v1/LoginGame

HTTP method : POST

URL Parameters:

Parameter name	Data Type	Mandatory	Description
trace_id	String	Yes	Unique identity (GUID) of the request Note: Please set the parameter value as GUID format

Body Parameters:

Parameter name	Data Type	Mandatory	Description
operator_token	String	Yes	Unique identity of operator
secret_key	String	Yes	Shared passphrase between PGSoft and operator
player_session	String	Yes	Token generated by PGSoft
operator_player_session	String	Yes	Token generated by operator system Note: <ul style="list-style-type: none"> • Max 200 characters • Please encode the value with UrlEncode to avoid unexpected error
player_name	String	Yes	Unique identity of players <ul style="list-style-type: none"> • player name is not case sensitive • Only alphabet, number, and “@”, “-”, “_” symbols are allowed Note: Max 50 characters
currency	String	Yes	Currency of player
nickname	String	No	Nickname of player Note: Max 50 characters

⁴⁰ Please refer to [WebView](#) section for more information

Example:

URL:

https://api.pg-bo.me/external/Login/v1/LoginGame?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311

Body:

operator_token=abc123&secret_key=a1b25cde5f3gh46ijkl&player_session=pg_token_xxx&operator_player_session=a2b3c4d5e6f7g8&player_name=player123¤cy=EUR&nickname=player123

Response

Body Parameters:

JSON Object

Parameter name	Data type	Description
player_name	String	Name of player
player_session	String	Session of player

Example:

```
{
  "data": {
    "player_name": "player1",
    "player_session": "pg_token_xxx"
  },
  "error": null
}
```

Error Response

Code	Message
1034	Invalid request
1200	Internal server error

5.2.3 Bet History Interpreter (Optional)

To reveal a player's bet results and details for specific bet.

Step 1

Before getting the bet detail, operator is required to call this API to get operator's session (Session timeout: 30 minutes).

Request

API URL : {PgSoftAPIDomain}/Login/v1/LoginProxy
HTTP method : POST

URL Parameters:

Parameter name	Data Type	Mandatory	Description
trace_id	String	Yes	Unique identity (GUID) of the request Note: Please set the parameter value as GUID format

Body Parameters:

Parameter name	Data Type	Mandatory	Description
operator_token	String	Yes	Unique identity of operator
secret_key	String	Yes	Shared passphrase between PGSoft and operator

Example:

URL:

https://api.pg-bo.me/external/Login/v1/LoginProxy?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311

Body:

operator_token=abc123&secret_key=a1b25cde5f3gh46ijk1

Response

Body Parameters:

JSON Object

Parameter name	Data Type	Description
operator_session	String	Operator session

Example:

```
{
  "data": {
    "operator_session": "E4ECB5CF-0BC6-4DA8-8551-8526F48AB9CD"
  },
  "error": null
}
```

Step 2

Get bet detail by:

API URL : {PgSoftPublicDomain}/history/redirect.html

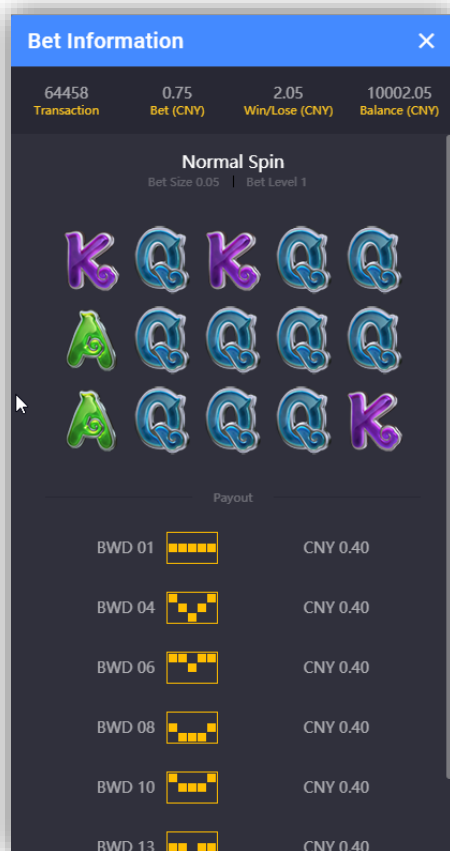
HTTP method : Get

URL Parameters:

Parameter name	Data Type	Description
trace_id	String	Unique identity (GUID) of the request Note: Please set the parameter value as GUID format
t	String	Operator session from Step 1
psid	String	Parent Bet ID
sid	String	Bet ID
lang	String	Language: <ul style="list-style-type: none"> • en (default) • zh
type	String	Fixed value: operator

Example:

https://public.pg-redirect.net/history/redirect.html?trace_id=b3f37e57-2873-40b1-aa95-f126c25ed311&t=E4ECB5CF-0BC6-4DA8-8551-8526F48AB9CD&psid=12345&sid=12345&lang=en&type=operator



Screenshot of betting detail

5.2.4 Others (Optional)

PGSoft provides several APIs for different modules and it is optional for integration. Operator may choose to integrate based on requirements:

- **Bet History** : To get a player's bet history
- **Game List** : To get the latest game list and available bet sizes
- **Free Game** : To perform several actions (For example: **Create** free game, assign player into free game, cancel free game, etc.) through API
- **Bonus Game** : To perform several actions (For example: **Create** bonus game, assign player into bonus game, cancel bonus game, etc.) through API.
- **Tournament** : To get tournament list, add player into tournament and get tournament ranking through API

5.3 Integrate PGSoft Game into Operator's iOS Application

Operator's application needs to meet the following requirements to launch PGSoft games in the application client:

- iOS 8.0 or above
- WKWebView

PGSoft game will prompt a "Poor Visit Experience" message if it does not meet the minimum requirements. Player is allowed to continue launching the game but it may not guarantee a stable, and high performance experience of the PGSoft game.

To ensure the application client passes the PGSoft game requirement check, operator is required to include the following codes when initializing WKWebView component in application:

```
WKUserContentController *controller = [[WKUserContentController alloc] init];
[controller addScriptMessageHandler: self name: @"Could be any string value"];

WKWebViewConfiguration *configuration = [[WKWebViewConfiguration alloc] init];
configuration.userContentController = controller;

WKWebView *webView = [[WKWebView alloc] initWithFrame: CGRectZero
configuration:
configuration];
webView.uiDelegate = self;
self.view = webView;
```

This is to construct a WKUserContentController object and set its userContentController property on the configuration. Please take note that the userContentController must have at least one scriptMessageHandler (assign through addScriptMessageHandler)

For more details regarding WKWebView, please refer to [Apple Developer Documentation](#)

6 Resolve Pending Bet

Sometimes pending bets may occur due to unforeseen circumstances during gameplay due to network latency, system failure, system timeout and so on.

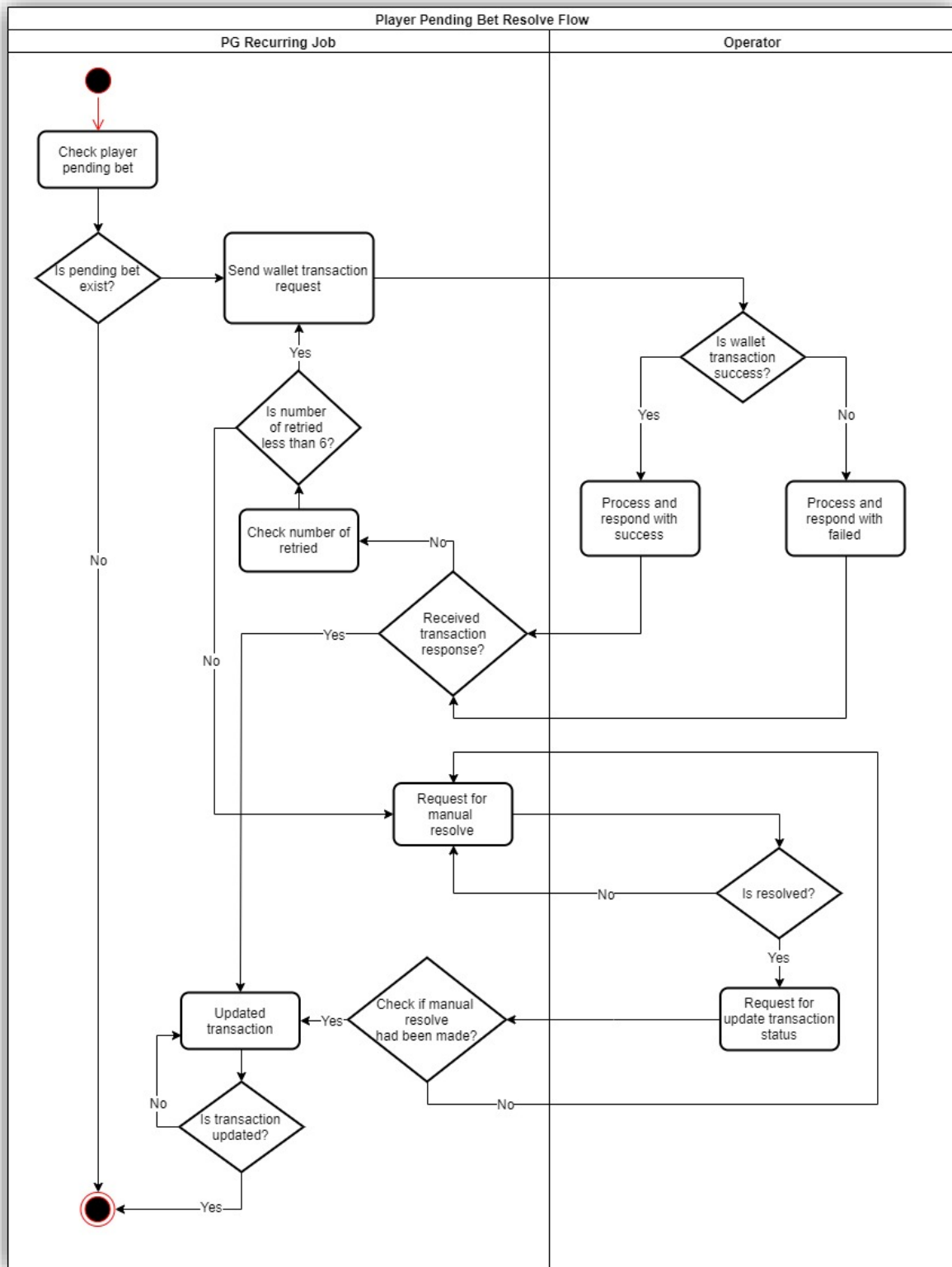
Generally, pending bet will be resolved automatically when the player relaunches the game. However, the bet will remain in pending status for some rare scenarios:

- Player did not relaunch the game after encountering an error
- PGSoft system did not receive any response from the operator when resolving pending bets
- PGSoft system receive an error response from the operator when resolving pending bets

Default interval of pending bet resolving time is set to 60 minutes. Pending bets which exceed the interval will be resolved by PGSoft system automatically. This interval is customizable, and every operator can have their own bet resolve interval time.

Manual resolve is required when **pending bets cannot be resolved** after several attempts. In such **cases**, **the** operator is required to resolve the pending bet manually, and PGSoft will mark these bets **statuses** as complete after getting the confirmation from the operator.

Screenshot



Player Pending Bet Resolve Flow

7 Reset Game State

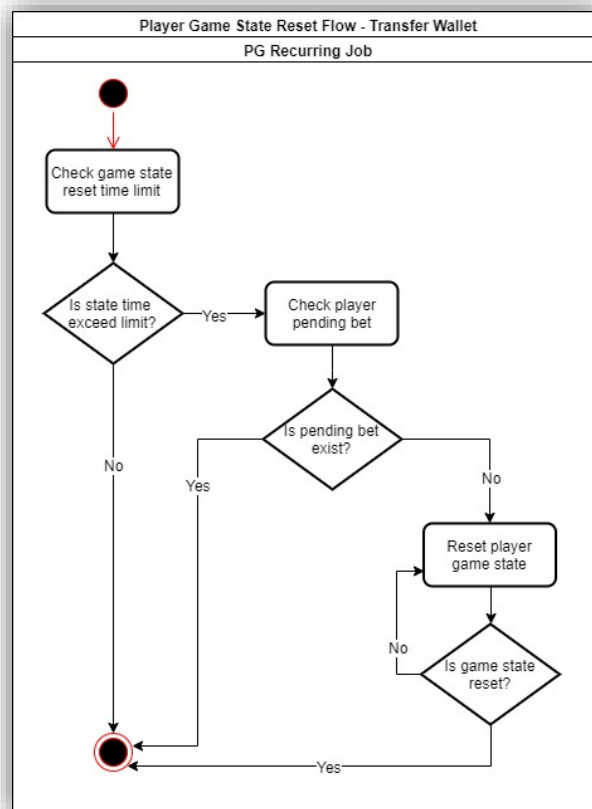
All games will support the resume feature which allows returning players to continue the game at their last game state from any device. For example, players will be able to continue a game with a bonus game state few days after even if the player had closed the game when the player won the bonus game.

However, the player's game state will reset every 90 days by default. This interval is customizable, and every operator can have their own game state reset interval time. System will clear all finished and unfinished game progress, and the player will not be able to continue a game after it has been reset.

For transfer wallet mode, every player game state will reset every 90 days by default:

- PGSoft system will reset a player's game state automatically if there are no pending bets for the player

Screenshot



Player's Game State Reset Flow for Transfer Wallet

8 Restrictions

8.1 IP

Players from the following restriction area are not able to access PGSoft game:

- Malaysia
- Singapore
- Taiwan
- United States of America
- Hong Kong
- Macau
- Israel
- Iran
- North Korea

8.2 Currency

Please find the following for the currencies not supported by PGSoft:

- HKD
- MOP
- MYR
- SGD
- TWD
- VES
- All cryptocurrencies except MBTC, UBTC, USDT, TUSD & USDC

9 Appendix

9.1 Error codes

Error code	Description
1034	Invalid request
1035	Operation Failed
1200	Internal server error
1204	Invalid operator
1300	Invalid player session
1301	Player session token is empty
1302	Invalid player session
1303	Server error occurs
1305	Invalid player
1306	Player is blocked to access current game
1307	Invalid player session
1308	Player session is expired
1309	Player is inactive
1310	Failed to verify operator player session
1315	Player's operation in progress
1400	Game is under maintenance
1401	Game is inactive
1402	Game does not exist
3001	Value cannot be null
3004	Player does not exist
3005	Player wallet does not exist
3006	Player wallet already exists
3009	Free game does not exist
3013	Out of the balance amount to transfer out
3014	Free game cannot be cancelled
3019	Not enough free game
3021	No bet exists
3022	Bet already pay-out
3030	Free game expired
3031	Free game already converted
3032	Bet already existed
3033	Bet failed
3034	Pay-out failed
3035	Invalid multiplier
3036	Not enough balance to convert

3040	Transaction does not exist
3202	Not enough cash balance to bet

9.2 Currencies

Currency Code	Currency Name	Base Unit
AED	Dirham des Émirats arabes unis	1
AFN	Afghanistan Afghani	1
ALL	Albanian Lek	1
AMD	Armenian Dram	1
ANG	Netherlands Antilles Guilder	1
AOA	Angola Kwanza	1
ARS	Argentine Peso	1
AUD	Australian Dollar	1
AWG	Aruba Guilder	1
AZN	Azerbaijani Manat	1
BAM	Bosnian Convertible Marka	1
BBD	Barbados Dollar	1
BDT	Taka bangladais	1
BGN	Lev bulgare	1
BHD	Bahrain Dinar	1
BIF	Burundian Franc	1000
BMD	Bermuda Dollar	1
BND	Brunei Dollar	1
BOB	Boliviano bolivien	1
BRL	Brazil Real	1
BSD	Bahamian Dollar	1
BTN	Bhutanese Ngultrum	1
BWP	Botswana Pula	1
BYN	Belarusian Rouble	1
BYR	Belarusian Ruble	1
BZD	Belize Dollar	1
CAD	Canadian Dollar	1
CDF	Congolese Franc	1000
CHF	Swiss Franc	1
CLP	Chilean Peso	1
CNY	Chinese Yuan	1
COP	Colombian Peso	1000
CRC	Colon costaricain	1
CSD	Serbian Dinar	1
CUP	Cuba Peso	1
CVE	Cape Verde Escudo	1
CZK	Czech Koruna	1

DJF	Djiboutian Franc	1
DKK	Danish Krone	1
DOP	Peso dominicain	1
DZD	Dinar algérien	1
EGP	Livre égyptienne	1
ERN	Eritrea Nakfa	1
ETB	Ethiopian Birr	1
EUR	Euro	1
FJD	Fiji Dollar	1
FKP	Falkland Islands (Malvinas) Pound	1
GBP	British Pound	1
GEL	Georgian Lari	1
GHS	Ghanaian Cedi	1
GIP	Gibraltar Pound	1
GMD	Gambian Dalasi	1
GNF	Guinean Franc	1000
GTQ	Quetzal guatémaltèque	1
GYD	Guyana Dollar	1
HNL	Honduran Lempira	1
HRK	Croatian Kuna	1
HTG	Haiti Gourde	1
HUF	Hungarian Forint	1
IDR	Indonesian Rupiah	1000
ILS	Shekel israélien	1
INR	Indian Rupee	1
IQD	Dinar irakien	1000
IRR	Iranian Rial	1000
ISK	Couronne islandaise	1
JMD	Jamaica Dollar	1
JOD	Jordanian Dinar	1
JPY	Japanese Yen	1
KES	Kenyan Shilling	1
KGS	Som du Kirghizistan	1
KHR	Cambodian Riel	1000
KMF	Comorian Franc	1
KPW	North Korea Won	1
KRW	South Korean Won	1000
KWD	Kuwait Dinar	1
KYD	Cayman Islands Dollar	1
KZT	Kazakhstani Tenge	1
LAK	Lao Kip	1000

LBP	Livre libanaise	1000
LKR	Roupie sri lankaise	1
LRD	Liberia Dollar	1
LSL	Lesotho Loti	1
LVL	Latvian Lats	1
LYD	Dinar libyen	1
MAD	Moroccan Dirham	1
MBTC	Milli Bitcoin	1
MDL	Moldovan Leu	1
MGA	Madagascar Ariary	1000
MKD	Dinar macédonien	1
MMK	Burmese Kyat	1000
MNT	Mongolian Tughrik	1000
MUR	Mauritius Rupee	1
MVR	Maldivian Rufiyaa	1
MWK	Malawian Kwacha	1
MXN	Mexican Peso	1
MZN	Mozambican Metical	1
NAD	Namibia Dollar	1
NGN	Nigerian Naira	1
NIO	Cordoba nicaraguayen	1
NOK	Norwegian Krone	1
NPR	Nepal Rupee	1
NZD	New Zealand dollar	1
OMR	Oman Rial	1
PAB	Balboa panaméen	1
PEN	Peruvian Sol	1
PGK	Papua New Guinea Kina	1
PHP	Philippine Peso	1
PKR	Pakistan Rupee	1
PLN	Poland Złoty	1
PYG	Guarani paraguayen	1000
QAR	Rial qatari	1
RON	Romanian Leu	1
RSD	Serbian Dinar	1
RUB	Russian Ruble	1
RWF	Rwandan Franc	1000
SAR	Rial saoudien	1
SBD	Solomon Islands Dollar	1
SCR	Seychellois Rupee	1
SDG	Livre soudanaise	1

SEK	Swedish Krona	1
SHP	Saint Helena Pound	1
SLL	Sierra Leonean Leone	1000
SOS	Somalia Shilling	1
SRD	Suriname Dollar	1
SVC	Colon salvadorien	1
SYP	Livre syrienne	1
SZL	Swazi Lilangeni	1
THB	Thai Baht	1
TJS	Tajikistan Somoni	1
TMT	Turkmenistan Manat	1
TND	Dinar tunisien	1
TOP	Tongan pa'anga	1
TRY	Turkish Lira	1
TTD	Trinidad and Tobago Dollar	1
TUSD	TrueUSD(Crypto)	1
TZS	Tanzanian Shilling	1000
UAH	Ukrainian Hryvnia	1
UBTC	Micro Bitcoin	1
UGX	Uganda Shilling	1000
USD	United States Dollar	1
USDC	USD Coin (Crypto)	1
USDT	Tether	1
UYU	Peso uruguayen	1
UZS	Uzbekistani Som	1000
VND	Vietnamese Dong	1000
VUV	Vanuatu Vatu	1
WST	Samoa Tala	1
XAF	Central African CFA Franc BEAC	1
XCD	East Caribbean Dollar	1
XOF	CFA Franc	1
XPF	CFP Franc	1
YER	Rial yéménite	1
ZAR	Rand sud-africain	1
ZMW	Zambian Kwacha	1

9.3 Bet Types

Bet Type	Game Mode
1	Real game
3	Tournament game

9.4 Transaction Types

Code	Transaction type
1	Cash
2	Bonus game
3	Free game

9.5 Platforms

Code	Category	Platform
1	Web	Windows
2		macOS
3		Android
4		iOS
5		others
6	Cordova	Android
7		iOS
8	Electron	Windows
9		macOS
10	Native	Windows
11		macOS
12		Android
13		iOS
98	others	System
99		Smartbot

9.6 Languages

Code	Language
en	English (default)
da	Danish
de	German
es	Spanish
fi	Finnish
fr	French
id	Indonesian
it	Italian
ja	Japanese
ko	Korean
nl	Dutch
no	Norwegian
pl	Polish
pt	Portuguese
ro	Romanian
ru	Russian
sv	Swedish
th	Thai
tr	Turkish
vi	Vietnamese
zh	Chinese
my	Burmese