

Standalone Card API

(Version 1.1.0)

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RAZER MERCHANT SERVICES

J-39-1, Block J, Persiaran Multimedia, i-City, 40000 Shah Alam, Selangor, Malaysia.



+603 - 5521 8438



support@fiuu.com



Fiuu.com



Social Networks

https://twitter.com/FiuuPayment

https://facebook.com/FiuuPayment

https://youtube.com/@FiuuPayment

https://instagram.com/FiuuPayment

https://linkedin.com/company/FiuuPayment

Developer Platforms

https://t.me/FiuuDeveloperForum (for tech support)

https://github.com/FiuuPayment

Mobile XDK, seamless and inpage checkout, and many shopping carts payment plugin/module/addon/extension are available





Revision History

Date	Version	Author(s)	Description					
07/12/2022	1.0.0	SQ	Introduction of standalone authentication and authorization API. Additional with authentication query API, zero-dollar verification AP and installment plan API.					
04/01/2023	1.0.1	SQ	Remove channel from authentication Remove cvvVerification from zero dollar verification API response Add Platform for zero dollar zero dollar verification AP request Add SchemeTranID for zero dollar verification API request Add TxnCurrency for authentication signature calculation Add Pending (22) for authentication query response API Add cclast4 for stand alone authorization request API Add CC_STORAGE_CONFIG request parameter for authorization and verification API Add skey to Zero Dollar Verification Response					
09/01/2023	1.0.2	SQ	Add Authentication Error Code for authentication API Add skey to Authentication Response Add AuthenticationID request parameter to authentication query API Update the parameter name from Datetime to DateTime					
26/01/2023	1.0.3	SQ	Remove standalone authorization API					
14/02/2023	1.0.4	SQ	Authentication API result will be responded to merchant for redirection instead of RMS performing the redirection					
02/03/2023	1.0.5	SQ	Rectify the formula use for all API. Changed from hash_sha256 to hmac_sha256					
16/03/2023	1.0.6	SQ	Zero Dollar Verification API i) Request - Make Platform optional - Add CC_TOKEN (DPAN support) - Add cryptogram - Add LAST4 - Add TOKEN_TYPE - Add ECI ii) Response - Add ProcessorResponseCode - Add MerchantAdviceCode					
05/04/2023	1.0.7	SQ	Zero Dollar Verification API i) Request - Add TxnChannel - Add CustName - Add CustEmail - Add CustContact ii) Response - Add TxnChannel - Add ProcessorCCVResponse - Add MerchantAdviceCode value breakdown					
05/04/2023	1.0.8	SQ	Zero Dollar Verification API i) Request - Add dsTransID - Rename Platform to Method for standardizing the naming of the variable with Direct Server API					

28/08/2023	1.0.9	Chen Yaau	Zero Dollar Verification API i) Request - Add non_3DS - Add ReturnURL ii) Response - Add TxnData
01/02/2024	1.1.0	SQ	Zero Dollar Verification API - Add response ECI value

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Authentication Request

Production URL: https://pay.merchant.razer.com/RMS/API/Card/authentication.php

Merchant can perform standalone authentication if you have your own authorization service. This integration helps to authenticate online transactions with the EMV 3DS protocol. Our authentication product is regularly maintained and is inline with the regular 3DS protocol updates. This ensure that merchant does not need to handle any differences between local and global schemes requirement to perform a successful authorization.

HTTP Method: POST

Parameter Name	Data Type (Size)	M/O/C	Description	
MerchantID	ans{132}	M	Merchant ID provided by PG	
ReferenceNo	ans{140}	M	Merchant Unique Transaction / Order / Billing / Reference No.	
TxnAmount	ns{10,2}	M	Transaction amount or maximum DirectDebit amount eg."1.00", 2 decimal points only and comma(,) is not allowed.	
TxnCurrency	a{3}	M	ISO4217 currency code, eg. "MYR", "THB", "IDR"	
CustName	ans(1128)	0	Customer name	
CustEmail	ans(1128)	0	Customer email.	
CustContact	ans(132)	0	Customer contact no	
CustDesc	ans{1200}	0	Customer/Merchant description	
Signature	ans(1100)	M	HMAC_SHA256(TxnAmount. MerchantID. ReferenceNo.TxnCurrency, Verifykey) *Do not include full stop in the hash calculation.It is just to indicate the different values needed to calculate the hash.	
ReturnURL	ans{1200}	M	Merchant's authentication response page	
CallbackURL	ans{1200}	0	Merchant's callback URL endpoint	
CC_PAN	n{1516}	M	The 16-digit shown on the card.	

CC_CVV2	n{34}	0	Card verification code. 3 digits except for Amex (4 digits)	
CC_MONTH	n{2}	M	Card expiry month	
CC_YEAR	n{4}	M	Card expiry year	
CC_TOKEN	n{16}	0	Token for credit card or DPAN	
TOKEN_TYPE	a{120}	С	GooglePay, MDES, VTS	

Authentication Response

Payment gateway will return a response in **JSON** format to the merchant. Please take note that this is NOT the authentication status result.

No	Field Name	Data Type (Size)	M/O/C	Description
1.	MerchantID	ans{132}	М	Merchant ID provided by PG
2.	ReferenceNo	ans{132}	М	Merchant Unique Authentication Reference No.
3.	AuthID	ans{120	М	PG Authentication ID.
5.	TxnCurrency	a{3}	M ISO4217 currency code, eg. "MYR", "THB", "IDR"	
6.	TxnAmount	ns{10,2}	М	Transaction amount eg."1.00", always 2 decimal points
7.	TxnData	array	М	Refer to TxnData below.

TxnData

No	Field Name	Data Type (Size)	M/O/C	Description
1	RequestURL	ans{1255}	M	URL to be REDIRECTED
2	RequestMethod	a{34}	M	Action method [GET/POST]
3	RequestType	a{58}	M	Recommended action [REDIRECT/POPUP/RESPONSE]
4	RequestData	array	M	Data to be submitted to the RequestURL

Note: RequestType **RESPONSE** is the final result of that payment and no further action required.

Final Authentication Response

The parameter responded will be in **HTTP POST** method, not in JSON format. Authentication response will be returned upon complete authentication journey up till merchant's return page. May refer to section <u>Authentication Query Response</u> for the authentication response format.

Authentication Query Request

Production URL: https://api.merchant.razer.com/RMS/API/Card/authn_query.php

This request is to query the authentication result that was performed.

Either AuthenticationID or ReferenceNo must be passed in order to obtain the authentication query result else it will be rejected.

HTTP Method: POST or GET

Parameter Name	Data Type (Size)	M/O/C	Description
MerchantID	ans{132}	М	Merchant ID provided by PG
AuthenticationID	ans{120}	С	The authenticationID provided after the authentication was performed.
ReferenceNo	ans{140}	С	ReferenceNo used during the authentication request.
DateTime	n{14}	М	Request date & time, e.g. 20161202153423 (YYYYMMDDHHmmss)
Signature	ans(1100)	М	HMAC_SHA256(Datetime.MerchantID.AuthenticationID.Reference No.Verifykey)

Authentication Query Response

Payment gateway will return a response in JSON format to the merchant.

Parameter Name	Data Type (Size)	M/O/C	Description
AuthenticationID	ans{120}	M	AuthenticationID assigned by Acquirer
MerchantID ans{132}		М	Merchant ID provided by PG
ReferenceNo	ans{140}	М	A reference number for merchant to refer to the request made
TxnCurrency	a{3}	М	ISO4217 currency code, eg. "MYR", "THB", "IDR"
TxnAmount	ns{10,2}	М	Transaction amount or maximum DirectDebit amount eg."1.00", 2 decimal points only and comma(,) is not allowed.
status	ans{2}	М	00 - Success authentication

	T		1		
			11 - Failed authentication22 - Pending authentication		
error_code	ans{1.10}	С	Error code for the failed verific	ation.	
error_desc	ans{1100}	С	Detailed explanation for the fai	iled verification.	
dsTranID	ans{2050}	С	Directory server transaction ID	provided by 3D	9's server
threeDSServerTransID	ans{2050}	С	3D's server ID generated durin	ng authentication	n request to DS
ECI	ans{2}	С	Electronic Commerce Indicato Directory Servers (namely Visa American Express) indicating t attempted on transactions enfo Eg:	a, MasterCard, I the outcome of a	MyDebit, JCB, and
			Mastercard	Visa	MyDebit
			02	05	15
			01	06	16
			00	07	17
cryptogram	ans{10100}	С	Base64 encoded cryptographic schemes to validate the cardho		
version	ans{15}	С	The version of 3D Secure used	d to authenticate	e the request.
cclast4	ans{4}	М	Last 4 digit of the cardnumber		
flowType	as{120}	С	Indicates whether the 3D Secu or frictionless - challenge - frictionless	ure authenticatio	on was challenged

responseTime	ans{18}	М	Date/Time of the authentication request completed (YYYY-MM-DD HH:mm:ss)
skey	ans{1100}	М	HMAC_SHA256(AuthenticationID . MerchantID . ReferenceNo . TxnCurrency . TxnAmount. status . threeDSServerTransID. cclast4, secretKey)
			*Do not include full stop in the hash calculation.It is just to indicate the different values needed to calculate the hash.

Zero Dollar Verification Request

Production URL: https://pay.merchant.razer.com/RMS/API/Card/cc_verification.php

Card verification is a strong first-line defense against potentially fraudulent cards. It ensures that the credit card number provided is associated with a valid, open account and can be tokenized and charged with a higher success rate. Cardholder will not be charged and won't see any billings on their financial statement.

HTTP Method: POST

Parameter Name	Data Type (Size)	M/O/C	Description
MerchantID	ans{132}	M	Merchant ID provided by PG
TxnChannel	ans{130}	M	Refer to Direct Server API (Appendix C) for channel value
ReferenceNo	ans{140}	M	A reference number for merchant to refer to the request made
TxnCurrency	a{3}	M	ISO4217 currency code, eg. "MYR", "THB", "IDR"
Signature	ans(1100)	М	HMAC_SHA256(TxnCurrency.MerchantID.ReferenceNo, Verifykey)
			*Do not include full stop in the hash calculation.It is just to indicate the different values needed to calculate the hash.
CC_PAN	n{1516}	0	The 16-digit shown on the card.
CC_TOKEN	ans{1650}	0	Token for credit card or DPAN
CC_CVV2	n{34}	0	Card verification code. 3 digits except for Amex (4 digits)
CC_MONTH	n{2}	M	Card expiry month
CC_YEAR	n{4}	M	Card expiry year
CustName	ans{1128}	0	The customer's name
CustEmail	ans{1128}	0	The customer's email address
CustContact	ans{132}	0	The customer's phone numer.

TOKEN_TYPE	a{120}	0	GooglePay,ApplePay,MDES,VTS	
ECI	ans{2}	С	Electronic Commerce Indicator (ECI) is a value returned by Directory Servers (namely Visa, MasterCard, JCB, and American Express) indicating the outcome of authentication attempted on transactions enforced by 3DS. Eg: Mastercard Visa 02 05 01 06 00 07	
Cryptogram	ans{1100}	С	Cryptogram generated using EMV-based cryptography to secure the transaction	
LAST4	n{4}	С	Mandatory if TOKEN_TYPE and CC_TOKEN are passed.	
dsTransID	ans{1100}	С	Directory server transactionID provided by 3D's server	
3DS_version	ans{1100}	С	Mandatory if using own authentication service	
mpstokenstatus	n{1}	С	A token status for PG to identify. 1: Request for new PG token 2: Passing an existing PG token 3: Merchant will be storing the card details/tokenizing for future use (Will not be tokenized through PG) 4; Merchant is passing a stored card number/token for payment.	
Method	a{38}	0	To identify the user's platform used to perform the transaction. web:PC browser mobile:Mobile phone browser app:Mobile APP mini:Mini Program inwallet:In-wallet browser	
non_3DS	n{1}	0	Applicable to card processing via specific processor using specific currency for pre-approved partners only. Equal to 0 by default and 1 for non-3DS transaction	
ReturnURL	ans{1200}	0	Merchant verification response page.	

tifyURL ans{1200}	0	Merchant's notify URL endpoint
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Zero Dollar Verification Response

Parameter Name	Data Type (Size)	M/O/C	Description	
VerificationID	ans{120}	M	Verification ID assign by Acquirer	
MerchantID	ans{132}	M	Merchant ID provided by PG	
ReferenceNo	ans{140}	M	A reference number for merchant	to refer to the request made
TxnChannel	ans{130}	M	Always response as value "CRED	NT"
TxnCurrency	a{3}	M	ISO4217 currency code, eg. "MYR	X", "THB", "IDR"
status	ans{2}	M	00 - Success Verification, 11 - Failed Verification	
error_code	ans{1.10}	С	Error code for the failed verification	n.
error_desc	ans{1100}	С	Detailed explanation for the failed verification.	
appcode	n{1516}	М	A six-digit alphanumeric code assigned by the card issuer to identify the approval for a specific authorization request.	
cclast4	ans{4}	M	Last 4 digit of the cardnumber	
schemeTranID	ans{1100}	M	Transaction ID provided by schem	е
ProcessorCCVRe sponse	a{1}	0	Credit Card validation response co	Description Indicate cvc match Indicate cvc no match Indicate cvc not process, the card scheme or issuer was unable to verify the cvc value
			S	Indicate cvc should be on the card, because the card scheme

ProcessorRespon seCode	ans{15}	0	U Scheme authorization response or	or issuer wants perform cvc verification Indicate cvc unverified, because issuer does not participate in cvc service
ECI	ans{2}	С	Electronic Commerce Indicator (E Servers (namely Visa, MasterCard indicating the outcome of authenti enforced by 3DS. Eg: Mastercard 02 01 00	
MerchantAdviceC ode	an{16}	0	MasterCard issuers use the Merch authorization request responses to about a cardholder's account. Value 01 02 03 04 21 22	
responseTime	ans{18}	M	Date/Time of the verification requ HH:mm:ss)	est completed (YYYY-MM-DD

TxnData	array	С	Refer TxnData below, return during verification request only.
skey	ans{1100}	M	HMAC_SHA256(VerificationID . MerchantID . ReferenceNo . TxnCurrency . status . appcode . schemeTranID, secretKey) *Do not include full stop in the hash calculation.It is just to indicate the different values needed to calculate the hash.

TxnData

Parameter Name	Data Type (Size)	M/O/C	Description
RequestURL	ans{1255}	M	URL to be REDIRECT .
RequestMethod	a{34}	M	Action method [GET/POST]
RequestType	a{58}	M	Recommended action
RequestData	array	M	[REDIRECT] Data to be submitted to RequestURL.

Final Verification Response

The parameter responded will be in **HTTP POST** method, not in JSON format. Verification response will be returned upon complete verification journey up till merchant's return page. May refer to section <u>Zero Dollar Verification Response</u> for the verification response format.

Installment Tenure Request

Production URL:

https://pay.merchant.razer.com/RMS/API/Installment/getEnableInstlChn.php

Use to get the channel name, installment tenure and minimum transaction amount based on card number and transaction amount provided by the merchant.

HTTP Method: POST

Parameter Name	Data Type (Size)	M/O/C	Description
MerchantID	ans{132}	M	Merchant ID provided by PG
CC_PAN	ans{64}	M	Encrypted 16-digit shown on the card.
CC_MONTH	ans{64}	M	Encrypted card's expiry month, e.g. 03.
CC_YEAR	ans{64}	M	Encrypted card's expiry year, e.g. 2023.
TxnAmt	ns{10,2}	M	Transaction amount. Eg."1.00", 2 decimal points only and comma (,) is not allowed.
DateTime	n{14}	M	Request date & time, e.g. 20161202153423 (YYYYMMDDHHmmss)
Signature	ans{1100}	M	HMAC_SHA256(MerchantID . CC_Pan . CC_Month . CC_Year . TxnAmt . DateTime . verify_key)

Installment Tenure Response

Parameter Name	Data Type (Size)	M/O/C	Description
Status	n{2}	M	00 - Success response
			11 - Failed response
error_code	an{5}	С	Error code for the failed verification, eg IP101
error_desc	ans{1100}	С	Detailed explanation for the failed verification.
MerchantID	ans{132}	С	Merchant ID provided by PG
Channel	ans{140}	С	Channel name
Issuer	array	С	Issuer name
InstlMthList	ans{150}	С	Available plans for the given card number or merchant. Example: [{"InstlMonth":3,"InstlMinAmt":"150"},{"InstlMonth":6,"InstlMinAmt":"50 0"}, {"InstlMonth":18,"InstlMinAmt":"1500"}]
Signature	ans{1100}	С	HMAC_SHA256(MerchantID . Channel . Issuer . InstIMthList . privateKey)

Installment Tenure Error Code

Error Code	Description
IP101	MerchantID is mandatory.
IP102	CC_PAN/CC_MONTH/CC_YEAR is mandatory.
IP103	TxnAmt is mandatory.
IP104	DateTime is mandatory.
IP105	Signature is mandatory.
IP106	Invalid MerchantID.
IP107	Invalid Signature.
IP108	The card is expired.
IP109	No eligible installment plan available.
IP110	Card not eligible for installment plan.

Authentication Error Code

Error Code	Description					
3001	User Cancel Authentication Page					
3014	Authentication Screen Timeout					
3019	User Enter invalid OTP more than 3 times. Card No blocked					
3012	User Submit Blocked or Inactive Card Number					
4000	Transaction has timeout					
7000	3DS Server received an invalid Authentication Request					