



Global Payment Gateway

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1. Overview

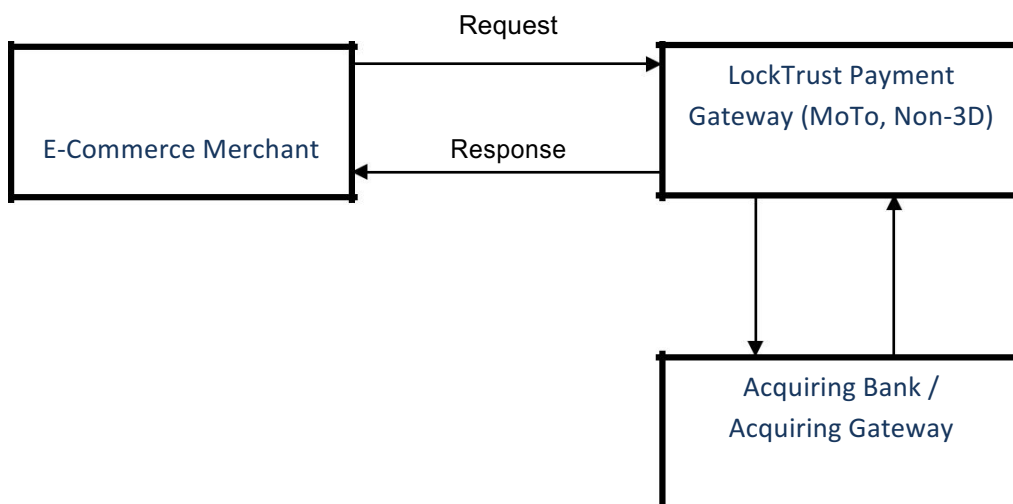
LockTrust is a PCI-DSS compliant platform with the ability to support strong data encryption for secure transactions. The target of LockTrust payment gateway is to keep the merchants' online e-commerce business up and running by applying simple integration methods and by offering advanced payment technology with high end risk management solutions.

This document is intended for programmers responsible for the merchant payment gateway interface. It describes the interface that merchant systems use to process the e-commerce transactions by means of standard form posting method. This interface supports various integration methods as Transport method.

2. Logical Components

LockTrust payment gateway exchanges data between merchant and gateway in the form of Request and Response.

The following diagram explains the components involved in the process:



A Merchant integrated with the Gateway initiates the transaction by sending request to gateway by **HTTPS POST** method. The Gateway sends back the response over the same socket to the merchant. Response time depends on the acquiring bank / acquiring gateway processing with the interbank networks.

Request/Response process is identified by a set of JSON message fields which provides the transaction interface between the merchant and the LockTrust payment gateway. Each integration URL will be provided along with the integration document to the merchant.

We recommend to timeout the request connection after **60 seconds**.

3. Communication Protocol Specification – Direct API Integration

Protocol: *https*

Method: *Post in REST*

URL: <https://gw.locktrust.com/Api/process>

Content-Type: *URL Encoded*

We use Content-Type: application/json

Encryption Level: *SSL Version 3.0*

As an example – The following JSON message can be sent by the merchant as one of the permitted service requests by means of HTTPS RESTFULL Post method:

```
{
  "apiKey" : "3jok57r",
  "merchantId" : "7000001",
  "action": 1
  "firstName" : "Demo",
  "lastName" : "Demo",
  "address" : "Demo Address",
  "city" : "Demo City",
  "stateCode" : "MH",
  "countryCode" : "IN",
  "zip" : "422101",
  "contactNo" : "1234567890",
  "email" : "demo@demo.com",
  "amount" : "10",
  "ccNo " : "4111111111111111",
  "expMonth " : "04",
  "expYear" : "2018",

  "cardType": "Visa",

  "cvv" : "123",
  "name_on_card" => "Demo Card"
}
```

4. Field Description

Request and response message data exchange depends on the following factors:

1. Each request sent by the merchant will get a response from the gateway on the same socket or the connection will be closed by the timeout of either the Gateway or the merchant;
2. The request and response have fields that provide authorization and authentication on both sides;
3. Request and response messages have some matching fields to maintain consistency between two interacted parties;
4. Every requested service has exact set of request and response fields.

The table below depicts each field, their maximum length and data type:

Request Message Fields

Field Name	Data Type	Field Maximum Length	Mandatory / Optional	Description
merchantId	AN	10	Mandatory	Field indicates the unique merchant id provided by the Gateway administrator. This field helps identify the merchant on the gateway.
apiKey	AN	15	Mandatory	Field indicates the API Key associated with the merchant id provided to the merchant.
action	N	2	Mandatory	Field indicates the transaction service action code for processing the transaction
ccNo	N	19	Conditional	Credit card number involved in the transaction. Required for purchase and pre-authorization transactions.
cvv	N	3	Conditional	Card Verification Value (security code) provided with the card. Required for purchase and pre-authorization transactions.
cardType	AN	10	Conditional	Credit card Type. Visa/MasterCard
expYear	N	4	Conditional	Credit card expiration year. It should be in YYYY format (2016). Required for purchase and pre-authorization transactions.

expMonth	N	2	Conditional	Credit card expiration month. 2 digit number from 01 to 12. Required for purchase and pre-authorization transactions.
firstName	AN	20	Mandatory	First Name of Customer.
lastName	AN	20	Mandatory	Last Name of Customer.
contactNo	N	10	Mandatory	Contact Number of the customer.
nameOnCard	A	40	Conditional	Full Name of the card holder. Required for purchase and pre-authorization transactions.

currencyCode	A	3	Mandatory	Alphabetic currency code of the transaction.
address	AN	50	Optional	Customer's address. This field is mandatory if AVS check is enabled.
city	AN	30	Optional	Customer's city. This field is mandatory if AVS check is enabled.
stateCode	AN	30	Optional	Customer's state. This field is mandatory if AVS check is enabled.
zip	AN	20	Optional	Customer's Postal code. This field is mandatory if AVS check is enabled.
countryCode	AN	30	Optional	Customer's Country. This field is mandatory if AVS check is enabled.
email	AN	50	Mandatory	Customer's email address.
amount	N	12	Mandatory	Amount of the transaction with or without decimal points, i.e. 2.25 or 2
merchantTrac kId	AN	50	Mandatory	Unique merchant tracking ID provided by the merchant when sending a transaction request to identify the transaction on the gateway. Avoid using space and special characters.
tranMessageId	AN	50	Optional	Original transaction reference number provided by the gateway. This field is optional in Purchase and Pre-Authorization transactions.
merchantIP	N	15	Optional	IP address of the merchant's system from which the transaction is generated.
customerIP	N	15	Optional	IP address of the customer's system from which the transaction is generated.

Response Message Fields

Field Name	Data Type	Field Maximum Length	Description
result	A	12	Result of the transaction processing on the gateway. This field has two values "Successful" or "Unsuccessful".
Response Code	AN	3	Response code of the transaction.
Auth Code	AN	6	Authorization code generated by bank.
ECI	N	2	Electronic Commerce Authentication Indicator
Tran Message ID	AN	50	Unique transaction ID generated by the gateway. In case of Capture and Refund transaction requests, this ID should be sent as original transaction reference.
Merchant Track ID	AN	50	Unique merchant tracking ID sent in the request.
Terminal ID	AN	10	Terminal ID provided in the request.
RRN	N	12	Retrieval Reference Number from international exchange.

5. Transaction Type

There are several transactions LockTrust payment gateway provides to the merchants within the scope of current version.

Transaction	Action Code
Purchase Transaction	1
Pre-Authorization Transaction	4
Capture Transaction	5
Void Pre-Authorization Transaction	9
Refund / Credit Transaction	2

6. Purchase Transaction (Action Code - 1)

Purchase transaction is an operation of debiting the cardholder's account. The transaction request should include the following fields:

Field Name	Data Type	Field Maximum Length	Mandatory / Optional	Description
merchantId	AN	10	Mandatory	Field indicates the unique merchant id provided by the Gateway administrator. This field helps identify the merchant on the gateway.
apiKey	AN	15	Mandatory	Field indicates the API Key associated with the merchant id provided to the merchant.
action	N	2	Mandatory	Field indicates the transaction service action code for processing the transaction
ccNo	N	19	Conditional	Credit card number involved in the transaction. Required for purchase and pre-authorization transactions.
cvv	N	3	Conditional	Card Verification Value (security code) provided with the card. Required for purchase and pre-authorization transactions.
expYear	N	4	Conditional	Credit card expiration year. It should be in YYYY format (2016). Required for purchase and pre-authorization transactions.
expMonth	N	2	Conditional	Credit card expiration month. 2 digit number from 01 to 12. Required for purchase and pre-authorization transactions.
cardType	A	10	Conditional	Credit Card Type. i.e Visa/MasterCard

nameOnCard	A	40	Conditional	Full Name of the card holder. Required for purchase and pre-authorization transactions.
currencyCode	A	3	Mandatory	Alphabetic currency code of the transaction.
firstName	A	20	Mandatory	First Name of Customer.
lastName	A	20	Mandatory	Last Name of Customer.
contactNo	N	10	Mandatory	Contact Number of the customer.
address	AN	50	Optional	Customer's address. This field is mandatory if AVS check is enabled.
city	AN	30	Optional	Customer's city. This field is mandatory if AVS check is enabled.
stateCode	AN	30	Optional	Customer's state. This field is mandatory if AVS check is enabled.
zip	AN	20	Optional	Customer's Postal code. This field is mandatory if AVS check is enabled.
countryCode	AN	30	Optional	Customer's Country. This field is mandatory if AVS check is enabled.
email	AN	50	Mandatory	Customer's email address.
amount	N	12	Mandatory	Amount of the transaction with or without decimal points, i.e. 2.25 or 2
merchantTrac kId	AN	50	Mandatory	Unique merchant tracking ID provided by the merchant when sending a transaction request to identify the transaction on the gateway. Avoid using space and special characters.
tranMessageId	AN	50	Optional	Original transaction reference number provided by the gateway. This field is optional in Purchase and Pre-Authorization transactions.
merchantIP	N	15	Optional	IP address of the merchant's system from which the transaction is generated.
customerIP	N	15	Optional	IP address of the customer's system from which the transaction is generated.

7. Pre-Authorization Transaction (Action Code – 4)

Pre-Authorization transaction is an authorization of payment on card. In case of successful authorization, the transaction amount will be frozen on customers account without debiting. The transaction request should include the following fields:

Field Name	Data Type	Maximum Length	Mandatory / Optional	Description
merchantId	AN	10	Mandatory	Field indicates the unique merchant id provided by the Gateway administrator. This field helps identify the merchant on the gateway.
apiKey	AN	15	Mandatory	Field indicates the API Key associated with the merchant id provided to the merchant.
action	N	2	Mandatory	Field indicates the transaction service action code for processing the transaction
ccNo	N	19	Conditional	Credit card number involved in the transaction. Required for purchase and pre-authorization transactions.
cvv	N	3	Conditional	Card Verification Value (security code) provided with the card. Required for purchase and pre-authorization transactions.
expYear	N	4	Conditional	Credit card expiration year. It should be in YYYY format (2016). Required for purchase and pre-authorization transactions.
expMonth	N	2	Conditional	Credit card expiration month. 2 digit number from 01 to 12. Required for purchase and pre-authorization transactions.
cardType	A	10	Conditional	Credit Card Type. i.e Visa/MasterCard
nameOnCard	A	40	Conditional	Full Name of the card holder. Required for purchase and pre-authorization transactions.
currencyCode	A	3	Mandatory	Alphabetic currency code of the transaction.
firstName	A	20	Mandatory	First Name of Customer.
lastName	A	20	Mandatory	Last Name of Customer.

contactNo	N	10	Mandatory	Contact Number of the customer.
address	AN	50	Optional	Customer's address. This field is mandatory if AVS check is enabled.
city	AN	30	Optional	Customer's city. This field is mandatory if AVS check is enabled.
stateCode	AN	30	Optional	Customer's state. This field is mandatory if AVS check is enabled.
zip	AN	20	Optional	Customer's Postal code. This field is mandatory if AVS check is enabled.
countryCode	AN	30	Optional	Customer's Country. This field is mandatory if AVS check is enabled.
email	AN	50	Mandatory	Customer's email address.
amount	N	12	Mandatory	Amount of the transaction with or without decimal points, i.e. 2.25 or 2
merchantTrackId	AN	50	Mandatory	Unique merchant tracking ID provided by the merchant when sending a transaction request to identify the transaction on the gateway. Avoid using space and special characters.
tranMessageId	AN	50	Optional	Original transaction reference number provided by the gateway. This field is optional in Purchase and Pre-Authorization transactions.
merchantIP	N	15	Optional	IP address of the merchant's system from which the transaction is generated.
customerIP	N	15	Optional	IP address of the customer's system from which the transaction is generated.

8. Capture Transaction (Action Code – 5)

Capture transaction is the actual amount debited from the customer's account after the previous successful Pre-Authorization transaction. The transaction request should include the following fields:

Field Name	Data Type	Field Maximum Length	Mandatory / Optional	Description
merchantId	AN	10	Mandatory	Field indicates the unique merchant ID provided by the Gateway administrator. This field helps identify the merchant on the gateway.
apiKey	AN	15	Mandatory	Field indicates the api key associated with the merchant ID provided to the merchant
action	N	2	Mandatory	Field indicates the transaction service action code for processing the transaction.
currencyCode	A	3	Mandatory	Alphabetic currency code of the original transaction
amount	N	12	Mandatory	Amount of the original transaction with or without decimal points, i.e. 2.25 or 2
merchantTrackId	AN	25	Mandatory	Unique merchant tracking id provided by the merchant in the original Pre-Auth .
tranMessageId	AN	50	Mandatory	Original transaction reference number provided by the gateway for a Pre-Auth transaction.
merchantIP	N	15	Optional	IP address of the merchant's system from which the transaction is generated.
customerIP	N	15	Optional	IP address of the customer's system from which the transaction is generated.

9. Void Pre-Authorization Transaction (Action Code – 9)

Void Pre-Authorization transaction is used to unfreeze the amount held by the successful Pre-Authorization transaction. Once the amount is captured, it cannot be voided. The transaction request includes the following fields:

Field Name	Data Type	Field Maximum Length	Mandatory / Optional	Description
merchantId	AN	10	Mandatory	Field indicates the unique merchant ID provided by the Gateway administrator. This field helps identify the merchant on the gateway.
apiKey	AN	15	Mandatory	Field indicates the api key associated with the merchant ID provided to the merchant
action	N	2	Mandatory	Field indicates the transaction service action code for processing the transaction.
currencyCode	A	3	Mandatory	Alphabetic currency code of the original transaction
amount	N	12	Mandatory	Amount of the original transaction with or without decimal points, i.e. 2.25 or 2
merchantTrackId	AN	25	Mandatory	Unique merchant tracking id provided by the merchant in the original Pre-Auth .
tranMessageId	AN	50	Mandatory	Original transaction reference number provided by the gateway for a Pre-Auth transaction.
merchantIP	N	15	Optional	IP address of the merchant's system from which the transaction is generated.
customerIP	N	15	Optional	IP address of the customer's system from which the transaction is generated.

10. Refund / Credit Transaction (Action Code – 2)

Refund transaction is an operation to credit back the funds onto customer's card account. Merchant can refund any amount which has been debited by the previously successful purchase or capture transactions. The transaction request should include the following fields:

Field Name	Data Type	Field Maximum Length	Mandatory / Optional	Description
merchantId	AN	10	Mandatory	Field indicates the unique merchant ID provided by the Gateway administrator. This field helps identify the merchant on the gateway.
apiKey	AN	15	Mandatory	Field indicates the api key associated with the merchant ID provided to the merchant
action	N	2	Mandatory	Field indicates the transaction service action code for processing the transaction.
currencyCode	A	3	Mandatory	Alphabetic currency code of the original transaction
amount	N	12	Mandatory	Amount of the original transaction with or without decimal points, i.e. 2.25 or 2
merchantTrac kId	AN	25	Mandatory	Unique merchant tracking id provided by the merchant in the original Pre-Auth .
tranMessageId	AN	50	Mandatory	Original transaction reference number provided by the gateway for a Pre-Auth transaction.
merchantIP	N	15	Optional	IP address of the merchant's system from which the transaction is generated.
customerIP	N	15	Optional	IP address of the customer's system from which the transaction is generated.

11. Special characters accepted by PG

Field Name	Optional/Mandatory	APLHABET/NUMNERS/ALPHA NUMER/SPECIAL CHARACTER
First Name*	Mandatory	Alphabets and space as special characters only.
Last Name*	Mandatory	Alphabets and space as special characters only.
Address	Optional	Alphanumeric and special characters include space,#/ .
Postal Code	Optional	Alphanumeric and special characters include space and -
City	Optional	Alphanumeric and special characters include space,# .
State	Optional	Alphanumeric and special characters include space,# .
Country*	Mandatory	Alphabets only. Does not accept special characters and numbers.
Email Id*	Mandatory	Alphanumeric and special characters include @ _ - .
Card Number*	Mandatory	Numbers only.
CVV	Optional/Mandatory	Numbers only.
Amount*	Mandatory	Numbers and dot as special character only.
Track Id*	Mandatory	Alphanumeric and underscore as special characters only.

12. Appendix A – Action Codes

Action Code	Transaction Service	Description
1	Purchase	Automatic capture transaction which is authorized and captured instantly.
4	Pre-Authorization	Authorization transaction which freezes the amount on the customer card.
5	Capture	2 nd Leg of Pre-Authorization transaction in which the amount will be captured.
9	Void Pre-Authorization	Cancel the successful Pre-Authorization transaction.
2	Refund / Credit	Refund of purchase or capture transaction.

13. Appendix B – Currency Codes

Currency Code	Currency Description
AED	United Arab Emirates Dirham
AFN	Afghanistan Afghani
ALL	Albanian Lek
AMD	Armenian Dram
ANG	Netherlands Antillean Guilder
AOA	Angolan Kwanza
ARS	Argentine Peso
AUD	Australian Dollar
AWG	Aruban Guilder
AZN	Azerbaijan New Manat
BAM	Bosnia-Herzegovina Convertible Marka
BBD	Barbados Dollar
BDT	Bangladeshi Taka
BGN	Bulgarian Lev
BHD	Bahraini Dinar
BIF	Burundi Franc
BND	Brunei Dollar
BOB	Bolivian Boliviano
BOV	Bolivian Mvdol
BRL	Brazilian Real
BSD	Bahamian Dollar
BTN	Bhutan Ngultrum
BWP	Botswana Pula
BYR	Belarusian Ruble
BZD	Belize Dollar

CAD	Canadian Dollar
CDF	Congolese Franc
CHE	WIR Euro
CHF	Swiss Franc
CHW	WIR Franc
CLF	Chilean Unidad de Fomento
CLP	Chilean Peso
CNY	China Yuan Renminbi
COP	Colombian Peso
CRC	Costa Rican Colon
CUC	Cuban Convertible Peso
CUP	Cuban Peso
CVE	Cape Verde Escudo
CZK	Czech Koruna
DJF	Djibouti Franc
DKK	Danish Krone
DOP	Dominican Peso
DZD	Algerian Dinar
EGP	Egyptian Pound
ERN	Eritrean Nakfa
ETB	Ethiopian Birr
EUR	Euro
FJD	Fiji Dollar
FKP	Falkland Islands Pound
GBP	United Kingdom Pound
GEL	Georgian Lari
GHS	Ghana Cedi
GIP	Gibraltar Pound
GMD	Gambian Dalasi
GNF	Guinea Franc
GTQ	Guatemalan Quetzal
GYD	Guyana Dollar
HKD	Hong Kong Dollar
HNL	Honduran Lempira
HRK	Croatian Kuna
HTG	Haitian Gourde
HUF	Hungarian Forint
IDR	Indonesian Rupiah
ILS	Israeli New Shekel
INR	Indian Rupee
IQD	Iraqi Dinar

IRR	Iranian Rial
ISK	Iceland Krona
JMD	Jamaican Dollar
JOD	Jordanian Dinar
JPY	Japanese Yen
KES	Kenyan Shilling
KGS	Kyrgyzstani Som
KHR	Cambodian Riel
KMF	Comoros Franc
KPW	North Korean Won
KRW	South Korean Won
KWD	Kuwaiti Dinar
KYD	Cayman Islands Dollar
KZT	Kazakhstani Tenge
LAK	Lao Kip
LBP	Lebanese Pound
LKR	Sri Lankan Rupee
LRD	Liberian Dollar
LSL	Lesotho Loti
LYD	Libyan Dinar
MAD	Moroccan Dirham
MDL	Moldovan Leu
MKD	Macedonian Denar
MMK	Burmese (Myanmar) Kyat
MNT	Mongolian Tugrik
MOP	Macau Pataca
MRO	Mauritanian Ouguiya
MUR	Mauritian Rupee
MVR	Maldives Rufiyaa
MWK	Malawi Kwacha
MXN	Mexican Peso
MYR	Malaysian Ringgit
NAD	Namibian Dollar
NGN	Nigerian Naira
NIO	Nicaraguan Cordoba Oro
NOK	Norwegian Krone
NPR	Nepalese Rupee
NZD	New Zealand Dollar
OMR	Omani Rial
PAB	Panamanian Balboa
PEN	Peruvian Nuevo Sol

PGK	Papua New Guinea Kina
PHP	Philippine Peso
PKR	Pakistani Rupee
PLN	Polish Zloty
PYG	Paraguayan Guarani
QAR	Qatari Rial
RON	Romanian New Leu
RSD	Serbian Dinar
RUB	Russian Ruble
RWF	Rwanda Franc
SAR	Saudi Riyal
SBD	Solomon Islands Dollar
SCR	Seychelles Rupee
SDG	Sudanese Pound
SEK	Swedish Krona
SGD	Singaporean Dollar
SHP	Saint Helenian Pound
SLL	Sierra Leonean Leone
SOS	Somali Shilling
STD	Sao Tomean Dobra
SVC	Salvadoran Colon
SYP	Syrian Pound
SZL	Swazi Lilangeni
THB	Thai Baht
TJS	Tajikistani Somoni
TND	Tunisian Dinar
TOP	Tongan Pa'anga
TRY	Turkish Lira
TTD	Trinidadian Dollar
TWD	Taiwan New Dollar
TZS	Tanzanian Shilling
UAH	Ukrainian Hryvnia
UGX	Ugandan Shilling
USD	US Dollar
USN	US Dollar (Next day)
USS	US Dollar (Same day)
UYU	Uruguayan Peso
UZS	Uzbekistani Sum
VEF	Venezuelan Bolivar
VND	Vietnamese Dong
VUV	Vanuatu Vatu

WST	Samoan Tala
XAF	Communauté Financière Africaine (BEAC) CFA Franc BEAC
XCD	East Caribbean Dollar
XOF	Communauté Financière Africaine (BCEAO) Franc
XPF	Comptoirs Français du Pacifique (CFP) Franc
YER	Yemeni Rial
ZAR	South African Rand
ZMK	Zambian Kwacha
ZWL	Zimbabwean Dollar

14. Appendix C – Country Codes

Country Name	Country Code
Afghanistan	AF
Albania	AL
Algeria	DZ
American Samoa	AS
Andorra	AD
Angola	AO
Antarctica	AQ
Antigua and Barbuda	AG
Argentina	AR
Armenia	AM
Aruba	AW
Australia	AU
Austria	AT
Azerbaijan	AZ
Bahamas	BS
Bahrain	BH
Barbados	BB
Belarus	BY
Belgium	BE
Belize	BZ
Benin	BJ
Bermuda	BM
Bhutan	BT
Bosnia and Herzegovina	BA
Botswana	BW
Bouvet Island	BV

Brazil	BR
British Indian Ocean Territory	IO
British Virgin Islands	NULL
Brunei	BN
Bulgaria	BG
Burkina Faso	BF
Burundi	BI
Cambodia	KH
Cameroon	CM
Canada	CA
Cape Verde	CV
Cayman Islands	KY
Central African Republic	CF
Chad	TD
Chile	CL
China	CN
Christmas Island	CX
Cocos [Keeling] Islands	CC
Colombia	CO
Comoros	KM
Congo [DRC]	CD
Congo [Republic]	CG
Cook Islands	CK
Costa Rica	CR
Croatia	HR
Cuba	CU
Cyprus	CY
Czech Republic	CZ
Denmark	DK
Djibouti	DJ
Dominica	DM
Dominican Republic	DO
East Timor	NULL
Ecuador	EC
Egypt	EG
El Salvador	SV
Equatorial Guinea	GQ
Eritrea	ER
Estonia	EE
Ethiopia	ET
Falkland Islands	FK

Faroe Islands	FO
Fiji	FJ
Finland	FI
France	FR
French Guiana	GF
French Polynesia	PF
French Southern Territories	TF
Gabon	GA
Gambia	GM
Georgia	GE
Germany	DE
Ghana	GH
Gibraltar	GI
Greece	GR
Greenland	GL
Grenada	GD
Guadeloupe	GP
Guam	GU
Guatemala	GT
Guernsey	GG
Guinea	GN
Guinea-Bissau	GW
Guyana	GY
Haiti	HT
Heard Island and McDonald Islands	HM
Honduras	HN
Hong Kong	HK
Hungary	HU
Iceland	IS
India	IN
Indonesia	ID
Iran	IR
Iraq	IQ
Ireland	IE
Isle of Man	IM
Israel	IL
Italy	IT
Ivory Coast	NULL
Jamaica	JM
Japan	JP
Jersey	JE

Jordan	JO
Kazakhstan	KZ
Kenya	KE
Kiribati	KI
Kosovo	NULL
Kuwait	KW
Kyrgyzstan	KG
Laos	NULL
Latvia	LV
Lebanon	LB
Lesotho	LS
Liberia	LR
Libya	LY
Liechtenstein	LI
Lithuania	LT
Luxembourg	LU
Macau	MO
Macedonia	MK
Madagascar	MG
Malawi	MW
Malaysia	MY
Maldives	MV
Mali	ML
Malta	MT
Marshall Islands	MH
Martinique	MQ
Mauritania	MR
Mauritius	MU
Mayotte	YT
Mexico	MX
Micronesia	FM
Moldova	MD
Monaco	MC
Mongolia	MN
Montenegro	ME
Montserrat	MS
Morocco	MA
Mozambique	MZ
Myanmar [Burma]	MM
Namibia	NA
Nauru	NR

Nepal	NP
Netherlands	NL
Netherlands Antilles	AN
New Caledonia	NC
New Zealand	NZ
Nicaragua	NI
Niger	NE
Nigeria	NG
Niue	NU
Norfolk Island	NF
North Korea	NULL
Northern Mariana Islands	MP
Norway	NO
Oman	OM
Pakistan	PK
Palau	PW
Palestinian Territories	PS
Panama	PA
Papua New Guinea	PG
Paraguay	PY
Peru	PE
Philippines	PH
Pitcairn Islands	PN
Poland	PL
Portugal	PT
Puerto Rico	PR
Qatar	QA
Réunion	RE
Romania	RO
Russia	RU
Rwanda	RW
Saint Barthélemy	NULL
Saint Helena	SH
Saint Kitts and Nevis	KN
Saint Lucia	LC
Saint Martin	NULL
Saint Pierre and Miquelon	PM
Saint Vincent and the Grenadines	VC
Samoa	WS
San Marino	SM
São Tomé and Príncipe	NULL

Saudi Arabia	SA
Senegal	SN
Serbia	RS
Serbia and Montenegro	NULL
Seychelles	SC
Sierra Leone	SL
Singapore	SG
Slovakia	SK
Slovenia	SI
Solomon Islands	SB
Somalia	SO
South Africa	ZA
South Georgia and the South Sandwich Islands	GS
South Korea	KR
Spain	ES
Sri Lanka	LK
Sudan	SD
Suriname	SR
Svalbard and Jan Mayen	SJ
Swaziland	SZ
Sweden	SE
Switzerland	CH
Syria	SY
Taiwan	TW
Tajikistan	TJ
Tanzania	TZ
Thailand	TH
Togo	TG
Tokelau	TK
Tonga	TO
Trinidad and Tobago	TT
Tunisia	TN
Turkey	TR
Turkmenistan	TM
Turks and Caicos Islands	TC
Tuvalu	TV
U.S. Minor Outlying Islands	UM
U.S. Virgin Islands	VI
Uganda	UG
Ukraine	UA
United Arab Emirates	AE

United Kingdom	GB
United States	US
Uruguay	UY
Uzbekistan	UZ
Vanuatu	VU
Vatican City	VA
Venezuela	VE
Vietnam	VN
Wallis and Futuna	WF
Western Sahara	EH
Yemen	YE
Zambia	ZM
Zambian Kwacha	ZMW
Zimbabwe	ZW

15. Appendix D – Response Codes

Response Code	Response Code Descriptions
000	Transaction Successful
001	Pending for Authorisation
101	Field is blank in a request
102	Internal Mapping for ISO not set
103	ISO message field configuration not found
104	Response Code not found in ISO message
105	Problem while creating or parsing ISO Message
201	Terminal does not exist
202	Merchant does not exist
203	Institution does not exist
204	Card prefix does not belong to corresponding card Type
205	Card not allowed for this transaction
206	Negative IP, Customer is not allowed to perform Transaction
207	Original Transaction not found
208	Transaction Flow not set for Transaction Type
209	Terminal status is Deactive, Transaction Declined
210	Terminal status is Closed, Transaction Declined
211	Terminal status is Invalid, Transaction Declined
212	Merchant status is Deactive, Transaction Declined
213	Merchant status is Closed, Transaction Declined
214	Merchant status is Invalid, Transaction Declined
215	Institution status is Deactive, Transaction Declined
216	Institution status is Closed, Transaction Declined

217	Institution status is Invalid, Transaction Declined
218	MOD10 Check Failed
219	Card Type not supported by Merchant
220	CVV Check Failed, CVV value not present
221	AVS Capture Check Failed, Could not find Customer Address
222	Customer Info Check failed, Could not find Customer Information
223	Card expiry date is not greater than current date
224	Invalid Login Attempts exceeded
225	Wrong Terminal password, Please Re-Initiate transaction
226	Negative Country, Customer is not allowed to perform Transaction
227	Card type not supported by institution
228	Multiple captures not allowed
301	Transaction is not allowed for given Terminal
302	Transaction is not allowed for given Merchant
303	Transaction is not allowed for given Institution
304	Currency not supported for given Terminal
305	Currency not supported for given Merchant
306	Currency not supported for given Institution
307	Velocity Check Failed, Velocity Profile not found, Level - Terminal
308	Velocity Check Failed, Velocity Profile not found, Level - Merchant
309	Velocity Check Failed, Velocity Profile not found, Level - Institution
310	Transaction Profile not set for Terminal, Unable to check Transaction Profile
311	Transaction Profile not set for Merchant, Unable to check Transaction Profile
312	Transaction Profile not set for Institution, Unable to check Transaction Profile
313	Currency Profile not set for Terminal, Unable to check Currency Profile
314	Currency Profile not set for Merchant, Unable to check Currency Profile
315	Currency Profile not set for Institution, Unable to check Currency Profile
316	Velocity Profile not set for Terminal, Unable to check Velocity Profile
317	Velocity Profile not set for Merchant, Unable to check Velocity Profile
318	Velocity Profile not set for Institution, Unable to check Velocity Profile
319	Refund Limit exceeded for Terminal
320	Refund Limit exceeded for Merchant
321	Refund Limit exceeded for Institution
322	Velocity Check Failed, Transaction amount below Minimum amount allowed, Level - Terminal
323	Velocity Check Failed, Transaction amount below Minimum amount allowed, Level - Merchant
324	Velocity Check Failed, Transaction amount below Minimum amount allowed, Level - Institution
325	Velocity Check Failed, Transaction amount exceeds Maximum amount allowed, Level - Terminal

326	Velocity Check Failed, Transaction amount exceeds Maximum amount allowed, Level - Merchant
327	Velocity Check Failed, Transaction amount exceeds Maximum amount allowed, Level - Institution
328	Velocity Check Failed, Level - Terminal
329	Velocity Check Failed, Level - Merchant
330	Velocity Check Failed, Level - Institution
331	Velocity Check Failed, Transaction exceeds Total transaction count, Level - Terminal
332	Velocity Check Failed, Transaction exceeds Total transaction count, Level - Merchant
333	Velocity Check Failed, Transaction exceeds Total transaction count, Level - Institution
334	Velocity Check Failed, Transaction amount exceeds Total transaction amount allowed, Level - Terminal
335	Velocity Check Failed, Transaction amount exceeds Total transaction amount allowed, Level - Merchant
336	Velocity Check Failed, Transaction amount exceeds Total transaction amount allowed, Level - Institution
337	Velocity Check Failed, Transaction exceeds Total transaction count of this Card, Level - Terminal
338	Velocity Check Failed, Transaction exceeds Total transaction count of this Card, Level - Merchant
339	Velocity Check Failed, Transaction exceeds Total transaction count of this Card, Level - Institution
401	Destination is not configured
402	Cannot lookup Destination to send message
403	Unable to route Message to Destination
404	Unable to get routing details
405	Destination does not log on
501	Refer to card issuer
502	Refer to card issuer, special condition
503	Invalid Merchant or Service Provider
504	Pick-up card
505	Do not honour
506	Error
507	Pick-up card, special condition
508	Honour with identification
509	Request in progress
510	Approved, partial
511	Approved, VIP
512	Invalid transaction
513	Invalid amount

514	Invalid card number
515	No such issuer
516	Approved, update track 3
518	Customer dispute
519	Re-enter transaction
520	Invalid response
521	No action taken
522	Suspected malfunction
523	Unacceptable transaction fee
524	File update not supported
525	Unable to locate record
526	Duplicate record
527	File update edit error
528	File update file locked
530	File update failed
531	Bank not supported
532	Completed partially
533	Expired card, pick-up
534	Suspected fraud, pick-up
535	Contact acquirer, pick-up
536	Restricted card, pick-up
537	Call acquirer security, pick-up
538	PIN tries exceeded, pick-up
539	No credit account
540	Function not supported
541	Lost card (Contact Bank)
542	No universal account
543	Stolen card
544	No investment account
551	Not sufficient funds (Client to Contact Bank)
552	No check account
553	No savings account
554	Expired card (Contact Bank)
555	Incorrect PIN
556	No card record
557	Transaction not permitted to cardholder
558	Transaction not permitted on terminal
559	Suspected fraud
560	Contact acquirer
561	Exceeds withdrawal limit

562	Restricted card
563	Security violation
564	Original amount incorrect

566	Call acquirer security
567	Hard capture
568	Response received too late
575	PIN tries exceeded
576	Approved country club
577	Intervene, bank approval required
578	Original transaction could not be found
579	approved administrative transaction
580	Approved national negative file hit OK
581	Approved commercial
582	No security module
583	No accounts
584	No PBF
585	PBF update error
586	Invalid authorisation type
587	Bad Track 2 bank offline
588	PTLF error
589	Invalid route service
590	Cut-off in progress
591	Issuer or switch inoperative
592	Routing error
593	Violation of law
594	Duplicate transaction
595	Reconcile error
596	Communication System malfunction
597	Communication Error
598	Exceeds cash limit
599	Host Response, Please check bank response code
5N0	Unable to authorize / Card type incorrect
5N1	Invalid PAN length
5N2	Preauthorization full
5N3	Maximum online refund reached
5N4	Maximum off-line refund reached
5N5	Maximum credit per refund
5N6	Maximum refund credit reached

5N7	Decline for cvv2 failure
5N8	Over floor limit
5N9	Maximum number refund credits
500	Referral file full
501	NEG file problem
502	Advance less than minimum

503	Delinquent
504	Over limit table
505	PIN required
506	Mod 10 check
507	Force post
508	Bad PBF
509	NEG file problem
5P0	CAF problem
5P1	Over daily limit
5P2	CAPF not found
5P3	Advance less than minimum
5P4	Number of times used
5P5	Delinquent
5P6	Over limit table
5P7	Advance less than minimum
5P8	Administrative card needed
5P9	Enter lesser amount
5Q0	Invalid transaction date
5Q1	Invalid expiration date
5Q2	Invalid transaction code
5Q3	Advance less than minimum
5Q4	Number of times used
5Q5	Delinquent
5Q6	Over limit table
5Q7	Amount over maximum
5Q8	Administrative card not found
5Q9	Administrative card not allowed
5R0	Approved administrative request
5R1	Approved administrative request
5R2	Approved administrative request
5R3	Chargeback-customer file updated
5R4	Chargeback-customer file updated -acquirer not found
5R5	Chargeback-incorrect prefix number
5R6	Chargeback-incorrect response code or CPF configuration
5R7	Administrative transactions not supported
5R8	Card on national negative file
5S4	PTLF full
5S5	Chargeback-approved, customer file not updated
5S6	Chargeback-approved, customer file not updated, acquirer not found

5S7	Chargeback-accepted, incorrect destination
5S8	ADMN file problem
5S9	Unable to validate PI
5T1	Invalid credit card advance amount
5T2	Invalid transaction date
5T3	Card not supported
5T4	Amount over maximum
5T5	CAF status = 0 or 9
5T6	Bad UAF
5T7	Cash back exceeds daily limit
5T8	Multiple invalid required fields
601	System Error, Please contact System Admin.
602	System Error, Please try again
603	Transaction timed out
604	Invalid Card Number
605	Invalid CVV
606	Invalid Track Id
607	Invalid Terminal Id
608	Invalid Address
609	Invalid Terminal Password
610	Invalid Action Code
611	Invalid Currency Code
612	Invalid Transaction Amount
613	Invalid Transaction Reference.
614	Invalid User Fields
615	Invalid City
616	Invalid characters encountered
617	Invalid Card Expiry Date
618	Invalid State
619	Invalid Country
620	Invalid Cardholder Name
621	Invalid Zip Code
622	Invalid IP Address
623	Invalid Email Address
624	Transaction cancelled by the user
625	3D Transaction Failed
626	Invalid CVV, CVV Mandatory
627	Capture not allowed, Mismatch in Capture and Original Auth Transaction Amount
628	Transaction has not been Captured/Purchase, Refund not allowed
629	Refund Amount exceeds the Captured/Purchase Amount

630	Transaction is Void, Capture not allowed
631	Transaction has been Captured, Void Auth not allowed
632	Original Transaction not found
633	Transaction already Refunded, Duplicate refund not allowed
634	Transaction is Void, Refund not allowed
635	Transaction has been Captured, Multiple captures not allowed
636	Transaction has been Voided, Multiple voids not allowed
637	A purchase transaction cannot be captured. It should be an Auth transaction
638	Purchase transaction cannot be Voided
639	Invalid Void Transaction, Mismatch in Void and Original Auth Transaction Amount
640	Refund transaction in progress, Cannot process duplicate transaction
641	Capture transaction in progress, Cannot process duplicate transaction
642	Void Auth transaction in progress, cannot process duplicate transaction
644	Transaction is fully refunded, refund not allowed
645	Transaction is chargeback transaction, refund not allowed
646	Transaction is chargeback transaction, refund amount exceeds allowed amount
699	Transaction timed out from bank

