amazon payment services

ValU
Consumer Finance

Document Version: 1.2
Nov, 2020

Contact Us
integration-ps@amazon.com
https://paymentservices.amazon.com

Contents

1 About this Document

This document describes the protocols, parameters, and technical environment provided by Amazon Payment Services for Merchants integrating ValU Consumer Finance.

1.1 Intended Audience

This document was created for Merchants, and their developers and technical teams who will integrate ValU Consumer Finance.

2 Request/ Response Value Type

Field Types	Description
Alpha	This type of fields only accepts alphabetical characters; i.e. from (**A**-**a**) to (**Z**-**z**).
Alphanumeric	This field contains a combination of alphabetic (**A**-**a**) to (**Z**-**z**), numeric values (**0**-**9**), and special characters based on the parameter specifications.
Numeric	This field type represents numeric values; only characters in the range from **0** to **9**.

3 ValU Consumer Finance

This consumer finance is a simple and secure financing platform where your customers can purchase online on short-term financing and repay the amount over a specific installment plan at an interest rate offered by the financing company. For now, we have partnered with **ValU** in Egypt to offer consumer financing services.

3.1 Before Starting

Before starting you have to know the following:

1. You should be integrated with **ValU** consumer finance.
2. Your customer should be registered with **ValU** in order to have this benefit of installments.

3.2 How it Works – Overview

1. **Customer Verify:**
   This request allows the Merchant to identify whether the customer is a ValU registered customer or not; by verifying the Customer's phone number.

2. **OTP Generate:**
   This request to generate an OTP for the customer, where the customer should fill down his phone number in the merchant's check-out page. ValU will generate the OTP code and send it to customer as SMS.

3. **Verify OTP:**
   This request is to validate the entered OTP in the merchant's check-out page to make sure it's the right OTP.

4. **Purchase:**
   This request allows the customer to purchase his selected items.

3.3 Customer Verify

This request allows the Merchant to identify whether the customer is a ValU registered customer or not; by verifying the Customer's phone number.

3.3.1 Customer Verify URLs

Test Environment URL
https://sbpaymentservices.payfort.com/FortAPI/paymentApi

Production Environment URL
https://paymentservices.payfort.com/FortAPI/paymentApi

3.3.2 Parameter Submission Type

REST POST request using JSON.

3.3.3 Customer Verify – Request

Include the following parameters in the Request you will send to Amazon Payment Services:

Customer Verify Request Parameters							
Parameter Name	**Type**	**Mandatory**	**Description**	**Length**	**Special Characters**	**Possible/ Expected Values**	**Example**
service_command	Alpha	Yes	Command.	20	_	CUSTOMER_VERIFY	
access_code	Alphanumeric	Yes	Access code.	20			zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	Yes	The ID of the Merchant.	20			CycHZxVj
merchant_reference	Alphanumeric	Yes	The Merchant's unique order number. The merchant reference should be the same for all APIs.	40	- _ .		XYZ9239-yu898
language	Alpha	Yes	The checkout page and messages language.	2		- en - ar	
payment_option	Alpha	Yes	Payment option.	10		VALU	
phone_number	Alphanumeric	Yes	The customer's phone number registered for ValU.	19			0000855769 4
signature	Alphanumeric	Yes	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200			7cad05f0212ed933c9a5d5dffa31661acf2c827a

Customer Verify Request Example


```
{
  "service_command":"CUSTOMER_VERIFY",
  "merchant_reference":"XYZ9239-yu898",
  "merchant_identifier":"CycHZxVj",
  "access_code":"zx0IPmPy5jp1vAz8Kpg7",
  "language":"en",
  "payment_option":"VALU",
  "phone_number":"00008557694",
  "signature":"54efbd76bd644e9ef237c39137bf5d2304dc1bfdf6f6302065b448f2456a07a7"
}
```


3.3.4 Customer Verify – Response

The following parameters will be returned in Amazon Payment Services' Response:

Customer Verify Response Parameters					
Parameter Name	**Type**	**Description**	**Length**	**Possible/ Expected Values**	**Example**
service_command	Alpha	Command.	20	CUSTOMER_VERIFY	
access_code	Alphanumeric	Access code.	20		zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	The ID of the Merchant.	20		CycHZxVj
merchant_reference	Alphanumeric	The Merchant's unique order number.	40		XYZ2939-yu898
language	Alpha	The checkout page and messages language.	2	- en - ar	
payment_option	Alpha	Payment option.	10	VALU	
phone_number	Alphanumeric	The customer's phone number registered for ValU.	19		00008557694
signature	Alphanumeric	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200		7cad05f0212ed933c9a5d5dffa31661acf2c827a

response_message	Alphanumeric	Message description of the response code. It returns according to the request language.	150	(Please refer to section Messages).	
response_code	Numeric	Response code carries the value of our system's response. *The code consists of five digits, the first 2 digits represent the response status, and the last 3 digits represent the response message.	5		90000
status	Numeric	A two-digit numeric value that indicates the status of the transaction.	2	(Please refer to section Statuses).	

Customer Verify Response Example!


```
{
  "response_code":"90000",
  "response_message":"Success",
  "service_command":"CUSTOMER_VERIFY",
  "signature":"27c1303138f8718e56f311d1b3d823b5a644e6bcd4fac43d5454955b13b5b337",
  "merchant_identifier":"CycHZxVj",
  "merchant_reference":"XYZ2939-yu898",
  "access_code":"zx0IPmPy5jp1vAz8Kpg7",
  "payment_option":"VALU",
  "language":"en",
  "phone_number":"00008557694",
  "status":"90"
}
```

3.4 OTP Generate

This request to generate an OTP for the customer, where the customer should fill in their phone number in the merchant's check-out page. ValU will generate the OTP code and send it to customer as SMS.

3.4.1 OTP Generate URLs

Test Environment URL
https://sbpaymentservices.payfort.com/FortAPI/paymentApi

Production Environment URL
https://paymentservices.payfort.com/FortAPI/paymentApi

3.4.2 Parameter Submission Type

REST POST request using JSON.

3.4.3 OTP Generate – Request

Include the following parameters in the Request you send to Amazon Payment Services:

OTP Generate Request Parameters							
Parameter Name	**Type**	**Mandatory**	**Description**	**Length**	**Special Characters**	**Possible/ Expected Values**	**Example**
service_command	Alpha	Yes	Command.	20	–	OTP_GENERATE	
access_code	Alphanumeric	Yes	Access code.	20			zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	Yes	The ID of the Merchant.	20			CycHZxVj
merchant_reference	Alphanumeric	Yes	The Merchant's unique order number. The merchant reference should be the same for all APIs.	40	- _ .		XYZ9239-yu898
language	Alpha	Yes	The checkout page and messages language.	2		- en - ar	
payment_option	Alpha	Yes	Payment option.	10		VALU	

phone_number	Alphanumeric	Yes	The customer's phone number registered for ValU.	19			0000855769 4
merchant_order_id	Alphanumeric	Yes	The Merchant's unique order id. * It should be unique per each transaction and you should use the same merchant_order_id value for all APIs.	100			Valu123
amount	Numeric	Yes	The transaction's amount. *Each currency has predefined allowed decimal points that should be taken into consideration when sending the amount.	10			10000
currency	Alpha	Yes	The currency of the transaction amount in ISO code 3.	3		EGP	
products	List	Yes	This parameter includes the product details.	4000			Please check the section below the table "products parameter"
signature	Alphanumeric	Yes	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200			7cad05f02 12ed933c9 a5d5dffa31 661acf2c82 7a
merchant_extra1	Alphanumeric	Yes	Extra data sent by merchant. Will be received and sent back as received. Will	250	. ; / _ -		JohnSmith

			not be displayed in any report.		, ' @		
merchant_extra2	Alphanumeric	Yes	Extra data sent by merchant. Will be received and sent back as received. Will not be displayed in any report.	250	. ; / _ - , ' @		JohnSmith
merchant_extra3	Alphanumeric	Yes	Extra data sent by merchant. Will be received and sent back as received. Will not be displayed in any report.	250	. ; / _ - , ' @		JohnSmith

3.4.3.1 Products parameter

Include the following parameters into "products" parameter you will send to Amazon Payment Services:

products parameters						
Parameter Name	**Type**	**Description**	**Length**	**Special Characters**	**Possible/ Expected Values**	**Example**
product_name	Alphanumeric	The name of the product.	100			iphone
product_price	Alphanumeric	The product price. The product price should be equal to the amount parameter.	100			10000
product_category	Alphanumeric	The product category.	100			phone

OTP Generate Request Example!

{
"merchant_reference":"XYZ9239-yu898",
"merchant_identifier":"CycHZxVj",
"access_code":"zx0IPmPy5jp1vAz8Kpg7",
"signature":"fb1a8978eff0df5700007f3a0ca7964f61eb4b3c17de0a43029851b84687699d",
"service_command":"OTP_GENERATE",

```
"language":"en",
"payment_option":"VALU",
"phone_number":"00008557694",
"merchant_order_id":"Valu123",
"amount":"10000",
"currency":"EGP",
"products":[
 {
  "product_name":"iphone",
  "product_price":"10000",
  "product_category":"phone"
 }
]
}
```


3.4.4 OTP Generate – Response

Include the following parameters in the Request you will send to Amazon Payment Services:

OTP Generate Response Parameters					
Parameter Name	**Type**	**Description**	**Length**	**Possible/ Expected Values**	**Example**
service_command	Alpha	Command.	20	OTP_GENERATE	
access_code	Alphanumeric	Access code.	20		zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	The ID of the Merchant.	20		CycHZxVj
merchant_reference	Alphanumeric	The Merchant's unique order number.	40		XYZ2939-yu898
language	Alpha	The checkout page and messages language.	2	- en - ar	
payment_option	Alpha	Payment option.	10	VALU	
phone_number	Alphanumeric	The customer's phone number registered for ValU.	19		00008557694
merchant_order_id	Alphanumeric	The Merchant's unique order id. * It should be unique per each transaction and you should use the same merchant_order_id value for all APIs.	100		Valu123

amount	Numeric	The transaction's amount. *Each currency has predefined allowed decimal points that should be taken into consideration when sending the amount.	10		10000
currency	Alpha	The currency of the transaction amount in ISO code 3.	3	EGP	
transaction_id	Alphanumeric	The unique transaction ID.	20		240719641384
total_down_payment	Alphanumeric	The total transaction's down payment. *Decimal values are not accepted.	100		1200
otp_status	Integer	The status of the OTP generation.	1	1 ➔ valid OTP 0 ➔ invalid OTP	
tenure	Alphanumeric	The tenure for the installment payments.	100		6-9-12-15-18
signature	Alphanumeric	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200		7cad05f0212ed933c9a5d5dffa31661acf2c827a
merchant_extra1	Alphanumeric	Extra data sent by merchant. Will be received and sent back as received. Will not be displayed in any report.	250		JohnSmith
merchant_extra2	Alphanumeric	Extra data sent by merchant. Will be received and sent back as received. Will not be displayed in any report.	250		JohnSmith
merchant_extra3	Alphanumeric	Extra data sent by merchant. Will be received and sent back as received. Will not be displayed in any report.	250		JohnSmith
response_message	Alphanumeric	Message description of the response code. It returns according to the request language.	150	(Please refer to section Messages).	
response_code	Numeric	Response code carries the value of our system's response. *The code consists of five digits, the first 2 digits represent the response status, and the last 3 digits represent the response message.	5		88000
status	Numeric	A two-digit numeric value that indicates the status of the transaction.	2	(Please refer to section Statuses).	

OTP Generate Response Example!

{
"transaction_id":"240719641384",
"amount":"10000",

```
"currency":"EGP",
"response_code":"88000",
"merchant_order_id":"Valu123",
"signature":"2304c9a011630db5286712903e7877a53aa96aa7cfe2151fd7c6cc350ec38c12",
"merchant_identifier":"CycHZxVj",
"access_code":"zx0IPmPy5jp1vAz8Kpg7",
"payment_option":"VALU",
"language":"en",
"response_message":"Success",
"service_command":"OTP_GENERATE",
"merchant_reference":"XYZ2939-yu898",
"total_down_payment":"1200",
"phone_number":"00008557694",
"otp_status":"1",
"tenure":"6-9-12-15-18",
"status":"88"
}
```


3.5 Verify OTP

This request is to validate the entered OTP in the merchant's check out page to make sure it's the right OTP.

3.5.1 Verify OTP URLs

Test Environment URL
https://sbpaymentservices.payfort.com/FortAPI/paymentApi

Production Environment URL
https://paymentservices.payfort.com/FortAPI/paymentApi

3.5.2 Parameter Submission Type

REST POST request using JSON.

3.5.3 Verify OTP – Request

Include the following parameters in the Request you will send to Amazon Payment Services:

Verify OTP Request Parameters							
Parameter Name	**Type**	**Mandatory**	**Description**	**Length**	**Special Characters**	**Possible/ Expected Values**	**Example**
service_command	Alpha	Yes	Command	20	_	OTP_VERIFY	
access_code	Alphanumeric	Yes	Access code.	20			zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	Yes	The ID of the Merchant.	20			CycHZxVj
merchant_reference	Alphanumeric	Yes	The Merchant's unique order number. The merchant reference should be the same for all APIs.	40	- _ .		XYZ9239-yu898
payment_option	Alpha	Yes	Payment option.	10		VALU	
phone_number	Alphanumeric	Yes	The customer's phone number registered for ValU.	19			0000855769 4
language	Alpha	Yes	The checkout page and messages language.	2		- en - ar	
amount	Numeric	Yes	The transaction's amount. *Each currency has predefined allowed decimal points that should be taken into consideration when sending the amount.	10			10000
currency	Alpha	Yes	The currency of the transaction amount in ISO code 3.	3		EGP	

merchant_order_id	Alphanumeric	Yes	The Merchant's unique order id. * It should be unique per each transaction and you should use the same merchant_order_id value for all APIs.	100			Valu123
otp	Alphanumeric	Yes	OTP sent by mobile.	10			123456
total_downpayment	Alphanumeric	Yes	The total transaction's down payment. *Decimal values are not accepted.	10			0
signature	Alphanumeric	Yes	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200			7cad05f0212ed933c9a5d5dffa31661acf2c827a

Verify OTP Request Example!


```
{
 "signature":"d5c9c93166c34efbf72c71c9f780ce7bc336f68f9d35d63dba014175fd44af58",
 "merchant_identifier":"CycHZxVj",
 "merchant_reference":"XYZ9239-yu898",
 "merchant_order_id":"Valu123",
 "access_code":"zx0IPmPy5jp1vAz8Kpg7",
 "language":"en",
 "amount":"1000",
 "currency":"EGP",
 "payment_option":"VALU",
 "service_command":"OTP_VERIFY",
 "total_downpayment":1200,
```

```
"otp":"123456",
"phone_number":"00008557694"
}
```


3.5.4 Verify OTP – Response

The following parameters will be returned in Amazon Payment Services Response:

Verify OTP Response Parameters					
Parameter Name	**Type**	**Description**	**Length**	**Possible/ Expected Values**	**Example**
service_command	Alpha	Command.	20	OTP_VERIFY	
access_code	Alphanumeric	Access code.	20		zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	The ID of the Merchant.	20		CycHZxVj
merchant_reference	Alphanumeric	The Merchant's unique order number.	40		XYZ2939-yu898
language	Alpha	The checkout page and messages language.	2	- en - ar	
payment_option	Alpha	Payment option.	10	VALU	
phone_number	Alphanumeric	The customer's phone number registered for ValU.	19		00008557694
merchant_order_id	Alphanumeric	The Merchant's unique order id. * It should be unique per each transaction and you should use the same merchant_order_id value for all APIs.	100		Valu123
amount	Numeric	The transaction's amount. *Each currency has predefined allowed decimal points that should be taken into consideration when sending the amount.	10		10000
currency	Alpha	The currency of the transaction amount in ISO code 3.	3	EGP	
total_downpayment	Alphanumeric	The total transaction's down payment. *Decimal values are not accepted.	10		1000
otp_status	Integer	The status of the OTP generation.	1	1 ➔ valid OTP 0 ➔ invalid OTP	
tenure	Alphanumeric	The tenure for the installment payments.	100		Please check the below **sample** for

					the returned tenure.
signature	Alphanumeric	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200		7cad05f0212ed933c9a5d5dffa31661acf2c827a
response_message	Alphanumeric	Message description of the response code. It returns according to the request language.	150	(Please refer to section Messages).	
response_code	Numeric	Response code carries the value of our system's response. *The code consists of five digits, the first 2 digits represent the response status, and the last 3 digits represent the response message.	5		92182
status	Numeric	A two-digit numeric value that indicates the status of the transaction.	2	(Please refer to section Statuses).	

“Tenure” parameter sample!


```
"tenure":{
"TENURE_VM":[
 {
  "EMI":"2118",
  "TENURE":"3",
  "InterestRate":"1.76"
 },
 {
  "EMI":"1105",
  "TENURE":"6",
  "InterestRate":"1.76"
 },
 {
  "EMI":"768",
  "TENURE":"9",
  "InterestRate":"1.76"
 },
 {
  "EMI":"600",
  "TENURE":"12",
  "InterestRate":"1.76"
```


- **EMI:** the total amount of money your customer needs to pay every month.
- **TENURE:** the number of the installment’.
- **InterestRate:** the amount that ValU charges the customer for; expressed as a percentage of the principal.

```
    },
    {
      "EMI":"500",
      "TENURE":"15",
      "InterestRate":"1.76"
    },
   ]
  },
```


Verify OTP Response Example!


```
{
  "amount":"10000",
  "currency":"EGP",
  "response_code":"92182",
  "merchant_order_id":"Valu123",
  "signature":"4bfc2476c6e42b6c1fc9539dbf5092bbc8a2493820816800f98f110c4453b5cd",
  "merchant_identifier":"CycHZxVj",
  "access_code":"zx0IPmPy5jp1vAz8Kpg7",
  "payment_option":"VALU",
  "language":"en",
  "total_downpayment":"0",
  "service_command":"OTP_VERIFY",
  "response_message":"OTP verification success",
  "merchant_reference":"XYZ2939-yu898",
  "phone_number":"00008557694",
  "otp_status":"1",
  "tenure":{
   "TENURE_VM":[
    {
      "EMI":"2118",
      "TENURE":"3",
      "InterestRate":"1.76"
    },
    {
      "EMI":"1105",
      "TENURE":"6",
```

```
        "InterestRate":"1.76"
      },
      {
        "EMI":"768",
        "TENURE":"9",
        "InterestRate":"1.76"
      },
      {
        "EMI":"600",
        "TENURE":"12",
        "InterestRate":"1.76"
      },
      {
        "EMI":"500",
        "TENURE":"15",
        "InterestRate":"1.76"
      },
    ]
  },
  "status":"92"
}
```


3.6 Purchase

This request allows the Customer to Purchase his selected items through the selected consumer finance.

3.6.1 Purchase URLs

Test Environment URL
https://sbpaymentservices.payfort.com/FortAPI/paymentApi

Production Environment URL
https://paymentservices.payfort.com/FortAPI/paymentApi

3.6.2 Parameter Submission Type

REST POST request using JSON.

3.6.3 Purchase – Request

Include the following parameters in the Request you will send to Amazon Payment Services:

Purchase Request Parameters							
Parameter Name	**Type**	**Mandatory**	**Description**	**Length**	**Special Characters**	**Possible/ Expected Values**	**Example**
command	Alpha	Yes	Command.	20		PURCHASE	
access_code	Alphanumeric	Yes	Access code.	20			zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	Yes	The ID of the Merchant.	20			CycHZxVj
merchant_reference	Alphanumeric	Yes	The Merchant's unique order number. The merchant reference should be the same for all APIs.	40	- _ .		XYZ9239-yu898
payment_option	Alpha	Yes	Payment option.	10		VALU	
phone_number	Alphanumeric	Yes	The customer's phone number registered for ValU.	19			0000855769 4
amount	Numeric	Yes	The transaction's amount. *Each currency has predefined allowed decimal points that should be taken into consideration when sending the amount.	10			10000
currency	Alpha	Yes	The currency of the transaction's amount in ISO code 3.	3			EGP
language	Alpha	Yes	The checkout page and messages language.	2		- en - ar	

customer_email	Alphanumeric	Yes	The customer's email.	254	_ - . @ +		customer@domain.com
merchant_order_id	Alphanumeric	Yes	The Merchant's unique order id. * It should be unique per each transaction and you should use the same merchant_order_id value for all APIs.	100			Valu123
transaction_id	Alphanumeric	Yes	The transaction's ID that is unique per transaction. It is returned in the Generate OTP response.	20			050819724899
otp	Alphanumeric	Yes	OTP sent by mobile.	10			123456
tenure	Alphanumeric	Yes	The tenure for the installment payments.	100			6
signature	Alphanumeric	Yes	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200			7cad05f0212ed933c9a5d5dffa31661acf2c827a
purchase_description	Alphanumeric	Yes	The purchase description.	100			Test
total_down_payment	Alphanumeric	Yes	The total transaction's down payment. *Decimal values are not accepted.	100			0
customer_code	Alphanumeric	Yes	Customer code for consumer finance integration.	30			12348557694

Purchase Request Example!


```
{
 "merchant_reference":"XYZ9239-yu898",
 "merchant_identifier":"CycHZxVj",
 "access_code":"zx0IPmPy5jp1vAz8Kpg7",
 "signature":"b574e362cc08d7504d8277e71400132f06064ee1537cd570717569b583dec0b5",
 "command":"PURCHASE",
 "language":"en",
 "payment_option":"VALU",
 "phone_number":"00008557694",
 "amount":"10000",
 "currency":"EGP",
 "customer_email":"customer@domain.com",
 "customer_code":"12348557694",
 "merchant_order_id":"Valu123",
 "transaction_id":"050819724899",
 "otp":"123456",
 "tenure":"6",
 "total_down_payment":"1200",
 "purchase_description":"Test"
}
```


3.6.4 Purchase – Response

The following parameters will be returned in Amazon Payment Services Response:

Purchase Response Parameters					
Parameter Name	**Type**	**Description**	**Length**	**Possible/ Expected Values**	**Example**
command	Alpha	Command.	20	PURCHASE	
access_code	Alphanumeric	Access code.	20		zx0IPmPy5jp1vAz8Kpg7
merchant_identifier	Alphanumeric	The ID of the Merchant.	20		CycHZxVj
merchant_reference	Alphanumeric	The Merchant’s unique order number.	40		XYZ2939-yu898
payment_option	Alpha	Payment option.	10	VALU	
phone_number	Alphanumeric	The customer’s phone number registered for ValU.	19		00008557694

amount	Numeric	The transaction's amount. *Each currency has predefined allowed decimal points that should be taken into consideration when sending the amount.	10		10000
currency	Alpha	The currency of the transaction's amount in ISO code 3.	3		EGP
language	Alpha	The checkout page and messages language.	2	- en - ar	
customer_email	Alphanumeric	The customer's email.	254		customer@domain.com
signature	Alphanumeric	A string hashed using the Secure Hash Algorithm. (Please refer to section Signature for more details).	200		7cad05f0212ed933c9a5d5dffa31661acf2c827a
purchase_description	Alphanumeric	The purchase description.	100		Test
customer_ip	Alphanumeric	It holds the customer's IP address. *We support IPv4 and IPv6 as shown in the example on the right hand side.	45		**IPv4**➔192.178.1.10 **IPv6**➔2001:0db8:3042:0002:5a55:caff:fef6:bdbf
eci	Alpha	E-commerce indicator.	16	ECOMMERCE	
fort_id	Numeric	The order's unique reference returned by our system.	20		149295435400084008
response_message	Alphanumeric	Message description of the response code. It returns according to the request language.	150	(Please refer to section Messages).	
response_code	Numeric	Response code carries the value of our system's response. *The code consists of five digits, the first 2 digits represent the response status, and the last 3 digits represent the response message.	5		14000
status	Numeric	A two-digit numeric value that indicates the status of the transaction.	2	(Please refer to section Statuses).	

Purchase Response Example


```
{
  "amount":"10000",
```

```
"response_code":"14000",
"signature":"afac5bd50250743cbd87ce208b1aabcae1080b9060bdb7212cf2c36e201cd6d0",
"merchant_identifier":"CycHZxVj",
"access_code":"zx0IPmPy5jp1vAz8Kpg7",
"payment_option":"VALU",
"customer_ip":"192.178.1.10",
"language":"en",
"eci":"ECOMMERCE",
"fort_id":"149295435400084008",
"command":"PURCHASE",
"response_message":"Success",
"merchant_reference":"XYZ2939-yu898",
"customer_email":"customer@domain.com",
"currency":"EGP",
"phone_number":"00008557694",
"status":"14"
}
```


3.7 Refund API

The refund API has been implemented to follow the same standards for all the other payment option refund flow. Please use the following document to understand the flow:
https://docs.payfort.com/docs/api/build/index.html#refund-operation

Note; The refund API of ValU supports only the full refund not partial.

3.8 Signature

A parameter that holds the digital signature value calculated by the SHA algorithm. The digital signature is used to authenticate the sender and receiver of the message and allows the receiver to verify the integrity of the message.

3.8.1 Message Digest

Name	Values	Description
SHA Type	* SHA-256 * SHA-512	The Secure Hash Algorithm is a family of cryptographic hash functions published by the National Institute of Standards and Technology (NIST) as a U.S. Federal Information Processing Standard (FIPS), including: SHA-0, SHA-1, SHA-2, SHA-3.
SHA Request Phrase	Dynamic value defined by the merchant	This value is used when the Merchant generates the request signature.
SHA Response Phrase	Dynamic value defined by the Merchant.	This value is used by our system to generate the response signature for the Merchant's Request.

3.8.2 Signature Pattern

The below steps describe the signature pattern:

- Sort all Amazon Payment Services requests parameters (both mandatory and optional) in an ascending alphabetical order based on the parameters names.
- Concatenate the parameter name with the value separated by '=' (param_name=param_value).
- Concatenate all the parameters directly without any separator. (param_name1=param_value1param_name2=param_value2).
- Add the Merchant's Passphrase at the beginning and end of the parameters string.

  (REQUESTPHRASEparam_name1=param_value1param_name2=param_value2REQUESTPHRASE).
- Use the SHA function to generate the SHA value of the resulted string depending on the type of SHA selected by the Merchant.

The following is an example for the Customer Verify - Request signature calculations:

Assume you have the below parameters included in the request of customer verify:

- service_command = CUSTOMER_VERIFY
- merchant_identifier = CycHZxVj
- merchant_reference = XYZ9239-yu898
- access_code = zx0IPmPy5jp1vAz8Kpg7
- language = en
- payment_option = VALU
- phone_number = 00008557694

Below are the Merchant signature settings from the back-office:

SHA Request Phrase: PASS.

SHA-Type: SHA-256.

The string to hash should be prepared for the above request is the following “step 4 of the Signature Pattern”:

```
PASSaccess_code=zx0IPmPy5jp1vAz8Kpg7language=enmerchant_identifier=CycHZxVjmerchant_reference=XYZ9239-yu898payment_option=VALUphone_number=00008557694service_command=CUSTOMER_VERIFYPASS
```

After applying step 5 of the Signature pattern, the result will be as follows:

```
Signature = f0c49b9dae92b3da04d82689f698189ac65f62596280cd253cb24130ce5a1ed6
```

The following is an example for the <u>Generate OTP – Request</u> signature calculations:

Assume you have the below parameters included in the request of generate OTP:

- service_command = OTP_GENERATE
- access_code = zx0IPmPy5jp1vAz8Kpg7
- merchant_identifier = CycHZxVj
- merchant_reference = XYZ9239-yu898
- payment_option = VALU
- phone_number = 00008557694
- merchant_order_id = Valu123
- amount = 10000
- currency = EGP
- products = [

```
{
  "product_name":"iphone",
  "product_price":"10000",
  "product_category":"phone"
}
]
```

Below are the Merchant signature settings from the back-office:

SHA Request Phrase: PASS.

SHA-Type: SHA-256.

The string to hash should be prepared for the above request is the following “step 4 of the Signature Pattern”:

NOTE!

To calculate the products parameter in the signature:

products = [
{ "product_name":"iphone",
"product_price":"10000",
"product_category":"phone"
}
]

- It should look like:

products=[{product_name=iphone, product_price=10000, product_category=phone}]

PASSaccess_code=zx0IPmPy5jp1vAz8Kpg7amount=10000currency=EGPlanguage=enmerchant_identifier=CycHZxVjmerchant_order_id=Valu123merchant_reference=XYZ9239-yu898payment_option=VALUphone_number=00008557694products=[{product_name=iphone, product_price=10000, product_category=phone}]service_command=OTP_GENERATEPASS

After applying step 5 of the Signature pattern, the result will be as follows:

Signature = c9a58adbe7fa5311b79a6362f28aa3e02c10cde5a37f10456e1caa6bd06

3.9 Messages & Statuses

Please refer to section Transaction Response Codes.