



# **GENERAL DOCUMENTATION FOR STANDARD INTEGRATION PAGOEFFECTIVO - ECOMMERCE**

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# Technical Document - Integrations

## 1. PURPOSE

The purpose of this document is to explain how **PagoEfectivo** payment gateway works and how it can be integrated into the platform of an affiliated merchant.

## 2. SCOPE

The document presents the information of the integration process between PagoEfectivo and the affiliate trade platform, likewise, it includes the technical specifications highlighting the description of the web services contract and the notification system.

## 3. GENERAL ASPECTS

### 3.1. ¿What is PagoEfectivo?

PagoEfectivo is the payment gateway service for Internet transactions of *Grupo El Comercio* and seeks to provide an alternative payment via Internet to anyone who wants to make online payments without the need to have credit or debit cards.

### 3.2. ¿How it works?

The process consists in generating a Payment Identification Code (CIP or CIP Code) that the user can then pay by approaching one of our affiliated payment centers; When the payment is made, the payment center will automatically notify PagoEfectivo system and, at the same time, PagoEfectivo will notify the affiliated merchant that the payment has been made satisfactorily.

See <https://www.youtube.com/watch?v=N1NJabZgUKQ>

### 3.3. Status of PagoEfectivo CIP Code

When a customer decides to purchase and pay with PagoEfectivo in a merchant store, a CIP is created from the platform of the merchant, this CIP is born with Pending payment status. The CIP created. changes to Paid status only when the customer pays the CIP through one of our authorized centers.

When a CIP Code is created, it has an expiration date (it varies depending on the business line), if CIP has not yet been paid and the expiration date expires, CIP goes from Pending payment status to Expired status.

## 4. INTEGRATION ENVIRONMENTS

PagoEfectivo offers two environments for the integration process: Integration environment and Production environment.

### 4.1. Environment for Integration

The environment for Integration is where the integration project will be developed and tested.

- Authorization to Generate CIP Code  
<http://pre1a.services.pagoefectivo.pe/v1/authorizations>
- Generate CIP Code  
<http://pre1a.services.pagoefectivo.pe/v1/cips>

### 4.2. Production Environment

The Production Environment is where the merchant can collect the payments.

- Authorization to Generate CIP Code  
<https://services.pagoefectivo.pe/v1/authorizations>
- Generate CIP Code  
<https://services.pagoefectivo.pe/v1/cips>

## 5. Technical Specification for Integration

The integration between the Merchant and PagoEfectivo, will be through REST Web Services, for the following cases: Authorize, Generate CIP Code. The [Commerce] is required to have a digital certificate.

### 5.1. Web Services

Web services consumed in payment flow of **PagoEfectivo** are the following:

- Authorization to generate CIP Code
- Generate CIP Code

#### 5.1.1 Authorization to generate CIP Code

<b>Nombre:</b>	<b>v1/Authorizations</b>
----------------	--------------------------

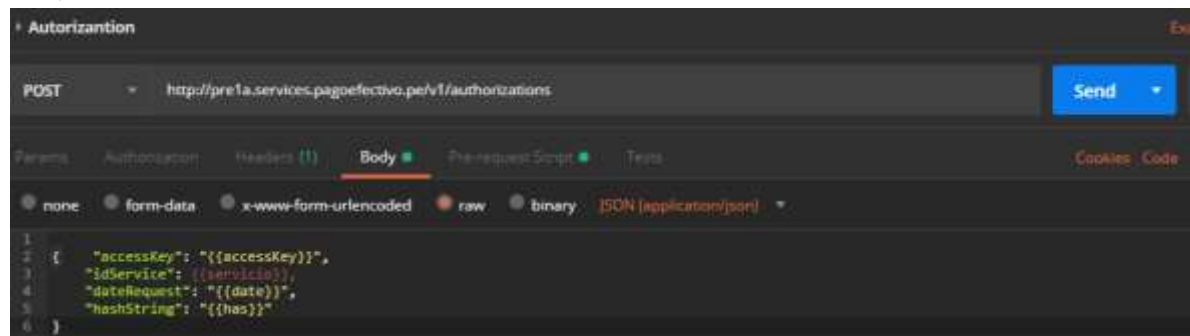
- **Input Data**

No.	Field	Attributes	Optional/ Mandatory	Length	Description
1	accessKey	AN	M	20	Access key provided by PagoEfectivo

2	idService	N	M	2	ID identifier of the Merchant provided by PagoEfectivo.
3	dateRequest	AN	M	25	Date of the authorization of CIP generation and UTC format. yyyy-mm-ddThh:mm:ss(+/-)zzzz (GTM-5) Hour Lima / Quito / Bogotá Example: 2018-11-15T15:45:00-05:00
4	hashString	AN	M	64	<b>SHA256</b> value generated by the concatenation of the components <b>idService.accesKey.secretKey.dateRequest</b>  IdService, accesKey y secreKey son valores proporcionados por PagoEfectivo al Comercio, Ejemplo: <b>8.AKIPJP77AHN2DKVIJURB.Nfybo8h0yN7C FN1ycX+XaG99pj/y3Vt25urt1LUR.2018-11-20T16:01:00-05:00</b>  <b>SHA256:</b> 3faa0677fe78c30800d5c9ec71218ddaa81d15 ca08e39f50177bbe328906c744

- Input Data – Example with POSTMAN

Body:

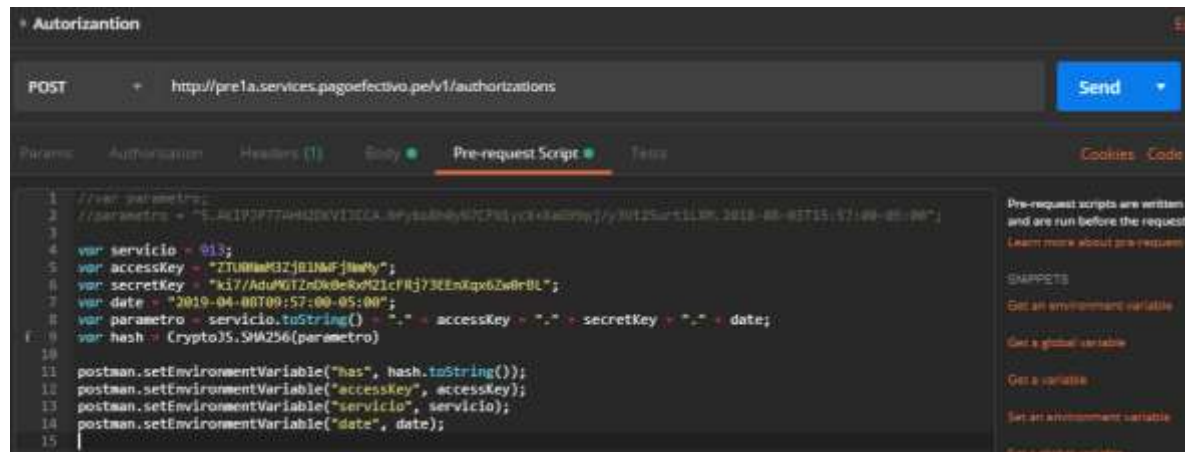


```

{  "accessToken": "{{accessToken}}",
  "idService": "{{servicio}}",
  "dateRequest": "{{date}}",
  "hashString": "{{has}}"
}

```

## PreRequest Script:



```

//var parametro;
//parametro = "5.AKIPJP77AHN2DKVIJCCA.Nfybo8h0yN7CFN1ycX+XaG99pj/y3Vt25urt1LXM.2018-08-03T15:57:00-05:00";
  
```

```

var servicio = 913;
var accessKey = "ZTU0NmM3ZjBINWFjNmMy";
var secretKey = "ki7/AduMGTZnDk0eRxM21cFRj73EEnXqx6Zw0rBL";
var date = "2019-04-08T09:57:00-05:00";
var parametro = servicio.toString() + "." + accessKey + "." + secretKey + "." + date;
var hash = CryptoJS.SHA256(parametro)
  
```

```

postman.setEnvironmentVariable("has", hash.toString());
postman.setEnvironmentVariable("accessKey", accessKey);
postman.setEnvironmentVariable("servicio", servicio);
postman.setEnvironmentVariable("date", date);
  
```

**Note:** the Date field must be a getdate (GTM-5 - Lima) the date and time that the authorization is being requested.

## Url: [Https://...../v1/authorizations](https://...../v1/authorizations) (Post)

- **Output Data – Authorization for CIP Generation.**

No.	Field	Attributes	Optional/ Mandatory	Length	Description
1	Code	N	M	3	Code of the response message
2	Message	AN	M	200	Response message
3	<b>Data</b>	AN	M		Detail of the response

- **Output Data - Data**

No.	Field	Attributes	Optional/ Mandatory	Length	Description
1	token	AN	M	25	Value generated by PagoEfectivo which allows the generation of CIP and invocation of PagoEfectivo API.
2	codeService	AN	O	1-30	Code of the Merchant in PagoEfectivo.
3	tokenStart	AN	M	1-14	Effective start date of the Token
4	tokenExpires	AN	M	1-14	Expiration date of the Token

- **Output Data - Example**

```
//Status: 200 OK
{
  "code": "100",
  "message": "Solicitud exitosa.",           //Successful request //
  "data": {
    "token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiJVUkIiLCJqdGkiOiJkZjI2MzF1NC1mNmVjLTQzMTEtYTU1NC02MzNiMmFhNzgwYTEiLCJuYW1lYWQiOiI4IiwiaXNjaXhwIjoxNTcyNzUxMDM5fQ.L0ykLoaxgmI18RWgdCND-dkqn3TpKG9TZqPqe-qIMuY",
    "codeService": "SRV",
    "tokenStart": "2018-11-20T16:57:19-05:00",
    "tokenExpires": "2019-11-02T22:17:19-05:00",
  }
}
```

**Note:** With the token you can generate several CIP codes until it expires. The validity of the token is according to merchant agreement.

**Note:** information between “//” must be ignored

### 5.1.2 Generate CIP Code

<b>Name:</b>	<b>v1/cips</b>
--------------	----------------



• **Input Data - Generate CIP**

Headers					
No	Field	Attributes	Optional/ Mandatory	Length	Description
1	Accept-Language	A	O	5	invoker's language, accepted values <b>es-PE (Peru Spanish)</b> or <b>en-US (American English)</b> .
2	Origin	A	M	3-7	Identify the origin of the invoker, it must be one of the follows: <ul style="list-style-type: none"> <li>• web</li> <li>• android</li> <li>• ios</li> </ul>
3	Authorization	AN	M	206	Authentication of Token, example: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9. eyJzdWUiOiJVUklicjQdGkiOiJiN2l3MTk4ZS1kY2RkLTQ0NmUtOWZiOS1jZmFiYmRkNmZkMDgiLCJuYW1laWQiOiI4IiwiaXNjaXNTcyNzQ3NjczfQ.41CTEh2OMu6NQ3G7G6x4Csbfs3OuPCKBqDkQqjALFI. Between Bearer and the token must be a character as space.

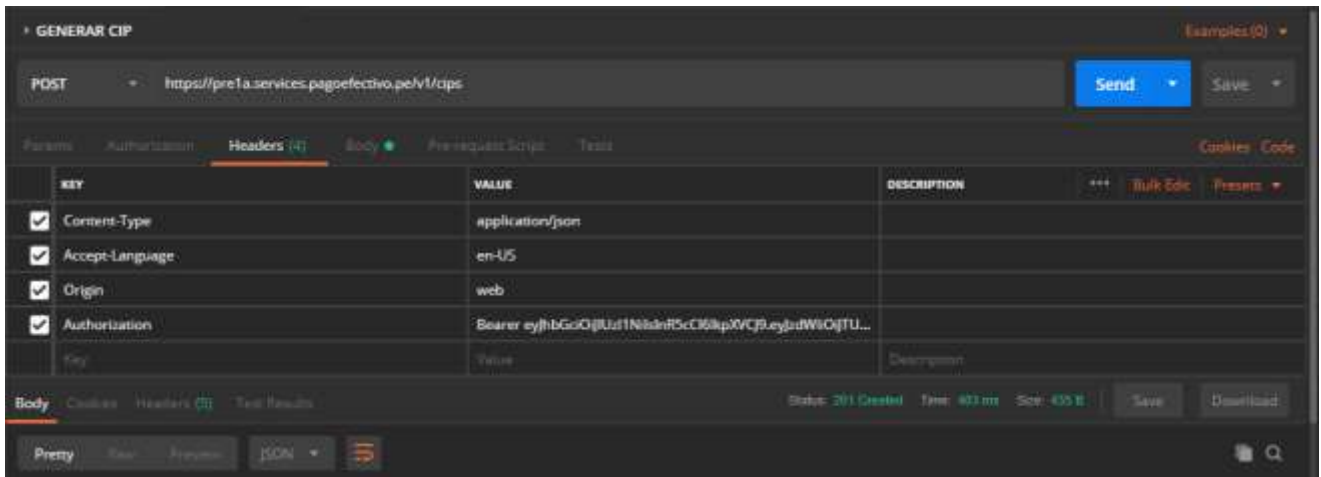
Body					
No	Field	Attribute	Optional/ Mandatory	Length	Description
1	currency	A	M	3	Currency of the transaction, accepted values: <ul style="list-style-type: none"> <li>• PEN (Peruvian Soles)</li> <li>• USD (US Dollars)</li> </ul>
2	amount	N	M	18	The amount of the operation. The separator is a "." 15 numeric digits 1-character digit (.) dot 2 decimal digits
3	transactionCode	AN	M	1-36	Code that identifies the operation, value will be provide by PagoEfectivo for the Merchant, up to 36 characters.
4	dateExpiry	DATETIME	M	25	Expiration date of CIP . The format is UTC yyyy-mm-ddThh:mm:ss(+/-)zzzz Example 2018-11-21T14:30:20-05:00.  If expiration day is not informed, standard expiration date will be taken as default.
5	paymentConcept	AN	O	1-50	Concept of payment



- Input Data – Example.

**Url: <https://...../v1/cips> (Post)**

**Header:**



Content-Type: application/json

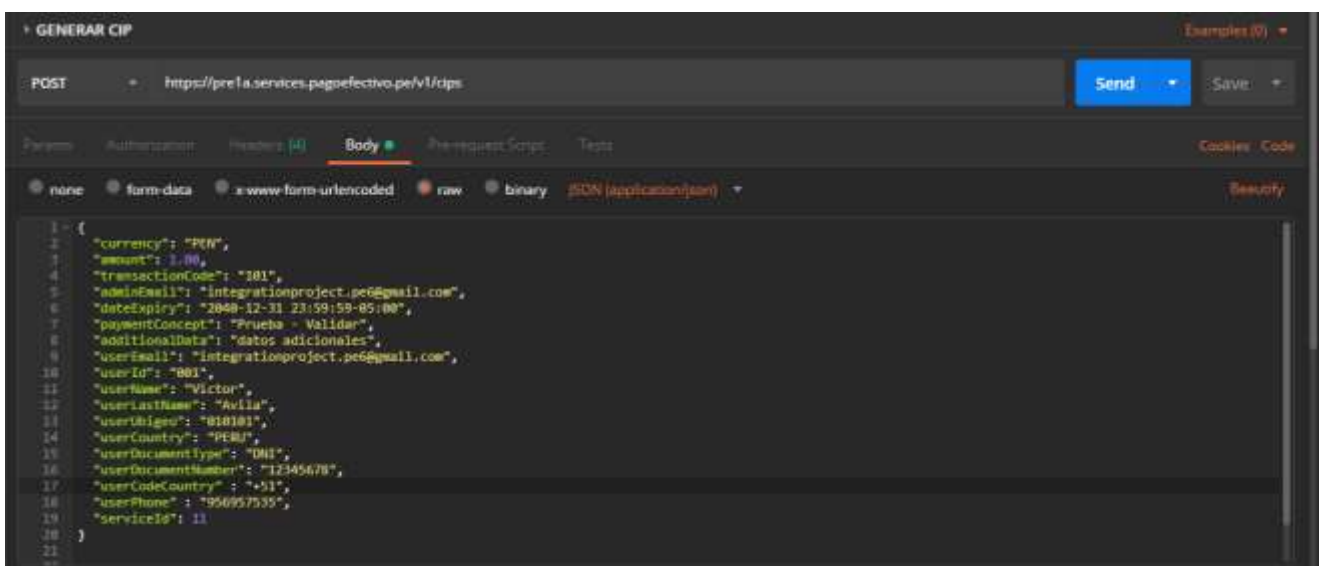
Accept-Language : " en-US"

Origin : web

Authorization : Bearer

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiJTUlYiLCJqdGkiOiIwYzUwMzZmNS0zZTk4LTQzZjU0OGM1Yi0yMGM2OTBiYTc0ZjciLCJyYW1laWQiOiIxMSIsImV4cCI6MTU5MjE4MzIxOX0.Lw2aRuQ3h16629m7KIEoonUvaAbVmS58yTiHhZmdvNY

**Body:**



```
{
  "currency": "PEN",
  "amount": 1.00,
  "transactionCode": "101",
```

```
"adminEmail": "integrationproject.pe6@gmail.com",
"dateExpiry": "2040-12-31 23:59:59-05:00",
"paymentConcept": "Prueba - Validar",
"additionalData": "datos adicionales",
"userEmail": "integrationproject.pe6@gmail.com",
"userId": "001",
"userName": "Victor",
"userLastName": "Avila",
"userUbigeo": "010101",
"userCountry": "PERU",
"userDocumentType": "DNI",
"userDocumentNumber": "12345678",
"userCodeCountry": "+51",
"userPhone": "956957535",
"serviceId": 11
}
```

## Output Data – Generate CIP

No.	Field	Attributes	Optional/ Mandatory	Length	Description
1	code	N	M	3	Response message Code
2	message	AN	M	200	Response message
3	Data	AN	M		Response detail.

### • Output Data - Data

No	Field	Attributes	Optional/ Mandatory	Length	Description
1	cip	AN	M	1-14	CIP Code
2	currency	A	M	3	Operation Currency , returned values. <ul style="list-style-type: none"> <li>PEN (soles)</li> <li>USD (Dollars)</li> </ul>
3	amount	N	M	18	The amount of the operation. The separator is a "." (dot) 15 numeric digits 1-character digit (.) 2 decimal digits
4	transactionCode	AN	M	1-36	Code that identifies the operation, provided by the Merchant up to 36 characters long.

No	Field	Attributes	Optional/ Mandatory	Length	Description
5	dateExpiry	DATETIME	M	25	Date of expiry the CIP. The format is UTC  yyyy-mm-ddThh:mm:ss(+/-)zzzz Example 2018-11-21T14:30:20-05:00.  If expiration day is empty, merchant's standard expiration date will be taken as default expiration date.
6	cipUrl	AN	M	76	URL of the generated CIP HTML document

- **Output Data - Example**

```
//Status: 200 OK
{
  "code": 100,
  "message": "Successful request.",
  "data": {
    "cip": 2523136,
    "currency": "PEN",
    "amount": 1,
    "transactionCode": "101",
    "dateExpiry": "2040-12-31T23:59:59-05:00",
    "cipUrl": "http://pre1a.payment.pagoefectivo.pe/AB803C1C-3266-4CFF-A236-4D9DD5AD260A.html"
  }
}
```

- **Output Data – HTML Document of Generate CIP.**


Transacciones seguras en Internet en el Perú

Enviar notificaciones vía     


**PagoEfectivo**
Información para tu pago

¡Estás a punto de finalizar tu compra!

Empresa Recaudadora: PagoEfectivo  
 Nombre de Servicio: PagoEfectivo Soles  
 Código de pago (CIP): **2523136**  
 Importe: **S/. 1.00**  
 Vencimiento: Lunes 31/12/2040 - 11:59 PM

El código de pago (CIP) no es una reserva confirmada de compra hasta haber realizado el pago.  
La empresa PayCash se reserva el derecho de finalizar el pedido antes del vencimiento.

- **Output Data – Example.**

```
//Status: 200 OK
{
  "code": "701",
  "message": "Transacción realizada con éxito.", // transaction
  "data": {}
}
```

**Note:** information between “//” must be ignored

## 5.2 Validation Response

- **Json example**

```
{
  "code": "111",
  "message": "Solicitud con datos inválidos.",
  "data": [
    {
      "code": "113",
      "message": "Valor inválido.", // invalid value //
      "field": "salePointCode"
    }
  ]
}
```

**Note:** information between “//” must be ignored

- **Response Messages**

**200 - Ok (Solicitud Exitosa )** // successful request //

**Note:** information between “//” must be ignored

CODE	MESSAGE (ES-PE)	DESCRIPTION
100	Success	Success that are not created or Deleted.

### 400 - Bad request

CODE	MESSAGE (ES-PE)	DESCRIPTION
111	<i>Invalid data request.</i>	Request data is not valid.

112	<i>Required.</i>	An attribute or element required has not been specified
113	<i>Invalid value.</i>	An attribute or specified element contains invalid data.
114	<i>Invalid Format.</i>	An attribute or specified element does not fulfill the expected format.
115	<i>Invalid Length.</i>	A value of the string does not fulfill the restriction length of an attribute.
116	<i>Invalid Rank</i>	The range of values is not valid
117	<i>Invalid date range.</i>	The range of values is not valid
508	<i>Servicio asociado al token es inválido.</i>	Service associated to token is invalid
509	<i>La fecha de expiración supera el límite establecido.</i>	Expiration date exceeds the established limit.
510	<i>La fecha de expiración es menor a la fecha actual.</i>	Expiration date is earlier than current date .
511	<i>Usted ha generado un Código CIP que excede el valor máximo permitido en este comercio. Por favor intente con un importe de menor cuantía.</i>	You have generated a CIP Code that has exceeds the maximum amount allowed for this merchant. Please try with a smaller amount.
591	<i>Expirado.</i>	CIP status is expired
592	<i>Generado.</i>	CIP status is generated.
593	<i>Pagado.</i>	CIP status is paid.
594	<i>Eliminado.</i>	CIP status is deleted.
595	<i>No encontrado.</i>	CIP not found.

#### 500 - Internal server error

CODE	MESSAGE (ES-PE)	DESCRIPTION
------	-----------------	-------------

166	Internal Server Error	Request has failed due to an internal server error
-----	-----------------------	--

## 5.2. Request URL Notification JSON (CIP Status notification)

The notification of PagoEfectivo to merchant is via web (WebRequest), to a route (UrlNotificación) that has established merchant. The type of request method is POST.

This notification is given in the following cases:

- Reverse Payment (cash back) of CIP.

The notification is in JSON format:

### Request Header:

Parameter	Data type	Description
<b>PE-Signature</b>	String	Sign in HMAC SHA256 hexadecimal format  Merchant validates the content of the request using the value of this parameter.

Request Header, example:

PE-Signature: 20e525c086cf0ee3e28dc2e1b7412073b0ad747395841ea7d6324f2d7ee40a05

### Request Body:

Name	Data type	Description and Structure (Data type or Structure)
<b>eventType</b>	String	Event type notification "cip.paid"
<b>operationNumber</b>	String (0..14)	Operation number that generate the event.
<b>(*)data</b>	<u>Object</u>	Object that contains notification data

(\*)data

Name	Data type	Description and Structure (Data type or Structure)
<b>cip</b>	String (1..14)	CIP Code
<b>currency</b>	String (3)	Currency Currency Code: ISO 4217
<b>amount</b>	Numeric	Amount <b>Format:</b> N(18,2)



Ejemplo Request Body:

```
{
  "eventType" : "cip.paid",
  "operationNumber" : "1253",
  "data" : {
    "cip" : "11546901",
    "currency" : "PEN",
    "amount" : 22.05
  }
}
```

To validate the integrity of data sent to merchant, the signature sent by PagoEfectivo and the one generated by the commerce are compared.

PE-Signature = HMAC\_SHA256("secretKey", "requestBody")

- **PE-Signature:** Signature sent by PagoEfectivo in the header of the request.
- **secretKey:** Key granted to merchant.
- **requestBody:** content of request body, is a json string without indentation:  
{"eventType":"cip.paid","operationNumber":"1253","data":{"cip":"11546901","currency":"PEN","amount":22.05}}.

PagoEfectivo platform expects the portal to respond to status 200 in the reception of notification. If an error occurs in the reception, the platform will try to make a second attempt.