In The Name Of GOD

Technical Documents of Connecting To ZarinPal Payment Gateway

Version 1.2 – April 2014

Revision History

Author	Date	Version	Description
Masoud Amini	27 July 2013	1.0	First Edition
Mostafa Amiri	22 November 2013	1.1	Adding shared Gateway methods
Mitra Saedi	22 April 2014	1.2	Translate to English

Table of Contents

Preface

This document explains how electronic payments are used in web via ZARINPAL e-pay.

This service applies the standard methods (web service) on secure protocols (https) in order to pave the ways to internet payments.

This system is a way for customers to shop by (Shetab)ATM cards.

Purpose

The purpose of this document is to introduce a chain of services which makes ZARINPAL e-acceptance of online payments services. The whole operations needed to apply e-payment are defined of on ZARINPAL e-pay along with the explanation of the operation methods.

Glossary

1. An acceptor: A person, organization or any company that provides a product or a service via internet.
2. Customer: a person who has an ATM card or ZARINPAL account that aims to shop or receive any services from an acceptor.
3. ZARINPAL Web Gate: is a way among the public web (customer and acceptor) and intra banking web.
4. Agent Bank: is a bank the customer selects and enters his/her ATM card information in ZARINPAL web gate.
5. Transaction: A financial operation that in this text is meant as customer.

Technical information of system

- Merchant code: is a unique code and is consisted of 36 characters that are provided by ZARINPAL for each request of e-pay.
- IP: From IP main server the acceptor must apply correct files and trainings through ZARINPAL lab to obtain a correct IP and announce it to ZARINPAL site.
- Authority: A unique ID sent to an acceptor by ZARINPAL site for each request. The material of this parameter is from (Universally unique identity) UUID, that by the adaptation of RFC in length is 36 characters.
- Status: A number which is shown to the acceptor by web service of ZARINPAL as the transaction status.
- Ref ID: A unique ID which is given to the customer whenever the transaction is done successfully. This ID can be used for financial follow up.
- Transaction description: A text that is provided by acceptor which explains the sort of product or service that the acceptor aims to give.

- Mobile: Customers' phone number that is provided by acceptor in web service to simplify the follow up operation after e-pay (this service is optional).
- Email: Customers' email address is provided by acceptor in web service to simplify the follow up operation after e-pay (this service is optional).
- Call back URL: an address that the customer is returned to when the operation ends.

Security requirements

ZARINPAL site owns valid certificates; therefore the connection of ZARINPAL customers and acceptors is done through SSL in a secure way. Owning a valid certificate by acceptor is not a must but it would be better.

Another security requirement is unawareness of ZARINPAL acceptor of any financial information of the customer such as (number of ATM card, password, amount of credit and etc.) as a result ZARINPAL and the acceptor have no financial and banking information from the customer and all the customers' information in entered in bank e-pay.

Accessibility to the system

To use web services below you must employ web site codes in the chart.

#	Address	Description
1	https://de.zarinpal.com/pg/services/WebGate/wsdl	**WSDL URL for PaymentRequest and PaymentVerification (in Germany) ***
2	https://ir.zarinpal.com/pg/services/WebGate/wsdl	**WSDL URL for PaymentRequest and PaymentVerification (in Iran) ***
3	https://www.zarinpal.com/pg/StartPay/**$Authority**	**Redirect users to WebGate after you make Authority**
4	https://www.zarinpal.com/pg/StartPay/**$Authority**/ZarinGate	**Redirect users to ZarinGate after you make Authority**

*Germany node is suitable for those acceptors whose servers locates somewhere out of Iran.

*Iran node is suitable for those acceptors whose servers locates in Iran.

Shopping Process

Shopping will be done by entering the seller's web site and selecting a required

Product or service and after that the bill is ready to be paid, then the seller will be announced the request identities with payment request method to ZARINPAL. At this time the acceptor asks for this method from ZARINPAL web service.

```
PaymentRequest(
        'MerchantID'            => $MerchantID,
        'Amount'                => $Amount,
        'Description'           => $Description,
        'Email'                 => $Email,
        'Mobile'                => $Mobile,
        'CallbackURL'           => $CallbackURL
        );
```

The Entrance parameter of payment request method is explained below:

Name	Description	is required	Type
MerchantID	Acceptor Unique MerchentID (36 Characters)	Yes	**String**
Amount	Transaction Amount (in Toman)	Yes	**Integer**
Description	Description of Transaction	Yes	**String**
Email	Buyer Email	No	**String**
Mobile	Buyer Mobile number	No	**String**
CallbackURL	Callback URL	Yes	**String**

The amounts that are returned via payment request method is explained below:

| Name	Descriptiom	Type
Status	If status is successful returns 100 else its negative.	**Integer**
Authority	Reference ID request successful in length to 36 characters and is otherwise empty.	**String**

ZARINPAL announces authority along with status as a reply to this request.
The acceptor is responsible to save the identities and redirect the user to the payment gate of web site if status is 100% successful and the authority length is correctly 36 characters. Authority must locate at the end of the URL web site gate as the main parameter.

URL	Description
https://www.zarinpal.com/pg/StartPay/**$Authority**	**Sample referral link for the WebGate**
https://www.zarinpal.com/pg/StartPay/**$Authority**/ZarinGate	**Sample referral link for the Zaringate**

Since the user is sent to ZARINPAL the customer has a limited time of 15 minutes to complete the payment operation in ZARINPAL site unless the authority is canceled.

You see a sample ZARINPAL web gate appearance below.
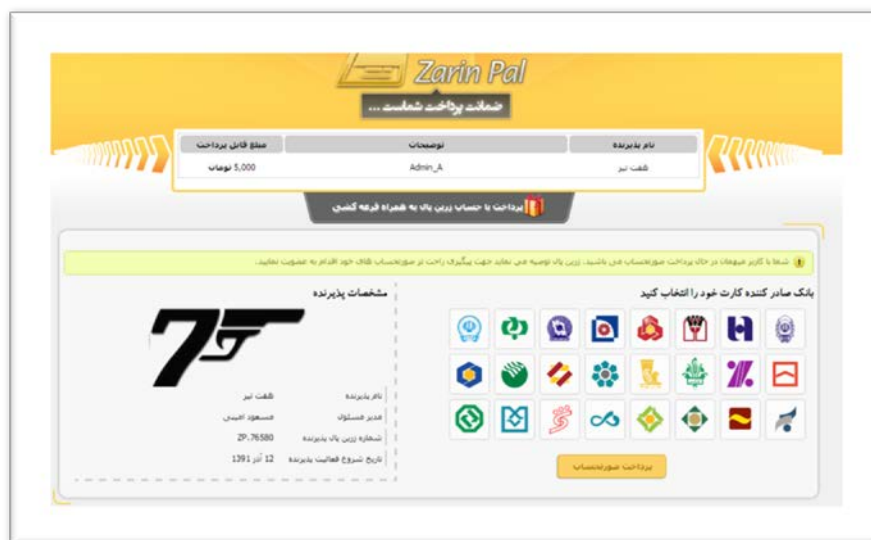
When the operation is finished from ZARINPAL side, it is responsible to return the user to the acceptor site that has been defined via call back URL.

On call back URL page the acceptor is responsible to fine an equivalent with authority that was sent from ZARINPAL on Call back URL as query string and check the transaction (status) that was sent the same way with payment verification. If the process was successful the transaction is submitted and its number is shown to the customer unless the acceptor is responsible to inform the user of the error according to the payment verification error code.

```
PaymentVerification(
        'MerchantID'            => $MerchantID,
        'Authority'             => $Authority,
        'Amount'                => $Amount
);
```

Point: Take this matter to the consideration that beside a status that exists in payment verification method there is also an other query string status that will be sent to the acceptor and that has two fixed value "OK" and "NOK". If the amount was shown as "NOK" is means that the transaction was unsuccessful or it was canceled by the user. So payment verification method should be used with query string and the amount of status is equal to "OK".

Name	Description	Type
MerchantID	Acceptor Unique MerchentID (36 Characters)	**String**
Authority	Unique Reference ID	**String**
Amount	Transaction Amount (in Toman)	**Integer**

The amounts that are returned via payment verification method are explained below.

Name	Description	Type
Status	The number that shows the status of verification	**Integer**
RefID	If the payment is successful, it returns the number of payment Reference ID	**Integer**

Purchase process by shared pay off

This method is suitable for those sellers whose benefit from entered price must be distributed in a special way. For example you own a web site that presents ceremony services and you have some contributions with several contractors. In this way you would keep some money and settle the rest of it to the contractors' account.

```
PaymentRequestWithExtra(
        'MerchantID'            => $MerchantID,
        'Amount'                => $Amount,
        'Description'           => $Description,
        'AdditionalData'        => $AdditionalData,
        'Email'                 => $Email,
        'Mobile'                => $Mobile,
        'CallbackURL'           => $CallbackURL
        );
```

So by visiting the customer from the agents' web site and choosing a product or service the bill is ready to be paid. The request along with pay off and recalled method of (Payment request with extra) is announced to ZARINPAL, at this time the acceptor asks for this method from ZARINPAL web site.

Name	Description	is required	Type
MerchantID	Acceptor Unique MerchentID (36 Characters)	Yes	String
Amount	Transaction Amount (in Toman)	Yes	Integer
Description	Description of Transaction	Yes	String
AdditionalData	JSON input data	Yes	String
Email	Buyer Email	No	String
Mobile	Buyer Mobile number	No	String
CallbackURL	CallBack URL	Yes	String

Additional data is in fact a chain that was ISON coded. What is explained below is a sample of additional data is sent to the pay off port to be utilized.

{"**Wages**":{"**zp.1.1**":{"Amount":120,"Description":" Transaction benefit division"}, "**zp.2.5**":{"Amount":60,"Description":" Settling transaction wage"}}}

The line above means that if the transaction was successful amount of 120 Toman from the main transaction is sent to account number (2) and amount of 60 Toman is sent to account number (5) and all the procedure is explained and saved.

Poin: the at most number and type of wage division is according to the contraction that was determined with ZARINPAL.

The amount that is returned via (payment request with extra) method is explained below.

Name	Description	Type
Status	The number that shows the status of verification	Integer
Authority	If the payment is successful, it returns the number of payment Reference ID	String

Point: this method is activated only by some acceptors and in specific conditions and majority of customers are not allowed to use or have access to this method. To access the mentioned method you can proceed the tickets on ZARINPAL web site.

When the operation is done, ZARINPAL is responsible to return the user to the site that was defined via call back URL..

On call back URL page the acceptor is responsible to fine an equivalent with authority that was sent from ZARINPAL on Call back URL as query string and check the transaction (status) that was sent the same way with (payment verification with extra). If the process was successful the transaction is submitted and its number is shown to the customer unless the acceptor is responsible to inform the user of the error according to the (payment verification with extra) error code.

```
PaymentVerificationWithExtra(
        'MerchantID'          => $MerchantID,
        'Authority'           => $Authority,
        'Amount'              => $Amount
);
```

Point: Take this matter to the consideration that beside a status that exists in (payment verification with extra) method there is also an other query string status that will be sent to the acceptor and that has two fixed value "OK" and "NOK". If the amount was shown as "NOK" is means that the transaction was unsuccessful or it was canceled by the user. So payment verification method should be used with query string and the amount of status is equal to "OK".

Name	Description	Type
MerchantID	Acceptor Unique MerchentID (36 Characters)	String
Authority	Unique Reference ID	String
Amount	Transaction Amount (in Toman)	Integer

The amounts that are returned via (payment verification with extra) method are explained below.

نام	شرح	نوع
Status	The number that shows the status of verification	Integer
RefID	If the payment is successful, it returns the number of payment Reference ID	Integer
ExtraDetail	Transaction contains additional information, such as number of transactions; the commission includes a JSON Encode.	String

Pay Off

After each transaction the payment is settled to the acceptors' account and according to the ZARINPAL information security politics and its administrative rules after completion of payment settlement form by acceptor for silver users in 3 to 4 days after settlement request and for golden users in 8 to 36 hours after settlement request

Reports

Users can observe the transaction and the details of their roll amount by entering their user account in ZARINPAL site and choosing (my wallet) and going to the wallet.

Sample of codes

The acceptor should return to ZARINPAL lab in ZARINPAL site to get samples of connection codes.

Attachments

The chart of error codes :

Responding methods		Description	Code
PaymentRequest PaymentVerification	✅ ✅	Information submitted is incomplete.	-1
PaymentRequest PaymentVerification	✅ ✅	Merchant ID or Acceptor IP is not correct.	-2
PaymentRequest PaymentVerification	✅ ❌	Amount should be above 100 Toman.	-3
PaymentRequest PaymentVerification	✅ ❌	Approved level of Acceptor is Lower than the silver.	-4
PaymentRequest PaymentVerification	❌ ✅	Request Not found.	-11
PaymentRequest PaymentVerification	❌ ✅	Financial operations for this transaction was not found.	-21
PaymentRequest PaymentVerification	❌ ✅	Transaction is unsuccessful.	-22
PaymentRequest PaymentVerification	❌ ✅	Transaction amount does not match the amount paid.	-33
PaymentRequestWithExtra PaymentVerificationWithExtra	✅ ❌	Limit the number of transactions or number has crossed the divide	-34
PaymentRequestWithExtra PaymentVerificationWithExtra	✅ ✅	There is no access to the method.	-40
PaymentRequestWithExtra PaymentVerificationWithExtra	✅ ❌	Additional Data related to information submitted is invalid.	-41
PaymentRequest PaymentVerification	❌ ✅	Request archived.	-54
PaymentRequest PaymentVerification	✅ ✅	Operation was successful.	100
PaymentRequest PaymentVerification	❌ ✅	Operation was successful but PaymentVerification operation on this transaction have already been done.	101