eSewa™ ePay

Developer's Guide

Version 1.0.3

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Chapter 1

Introduction

Introduction

Developer's Guide

This document is intended to be used as a reference in the planning, building, and deploying of applications wishing to integrate **eSewa ePay System**. Contained within are specific implementation details concerning general guidelines, transaction flow and validation process which all partner applications should adhere to. This information should help accelerate the integration efforts of eSewa ePay System with merchant application.

Documentation Limitations

This document does not necessarily define specific ways to implement the guidelines and procedures contained within. Vendor, platform, and architectural considerations may influence the manner in which individual systems comply.

Scope

The focus of this document is to detail how partner applications establish connectivity to eSewa and outline the transaction process with or without verification process. A full and detailed description of the transactions and associated data elements is included.

Intended Audience

This document is intended for partners merchant seeking to integrate and transact with the eSewa. It should be used as a reference during the planning, building, and deploying of such systems and applications.

Overview

General Description

The eSewa ePay system enables partner merchant to perform transaction and receive money from customer having eSewa account in secure environment.

Transaction Flow

1. When user chooses eSewa as online payment option from partner merchant application, then user is temporarily redirected to eSewa ePay login page.

2. Users have to input valid eSewa ID along with password for login and confirm the transaction to complete the process.

3. By confirming the transaction, user is accepting the transaction details sent by partner merchants.

4. After each successful transaction, the user is redirected back to partner merchant's success page. If transaction fails due to any reason (which includes user canceling transaction), the user is informed by appropriate failure message and redirected back to partner merchant's failure page.

5. For every successful transaction, the merchant account is credited accordingly and notified via email/SMS regarding transaction..

6. Partner merchants with verification process implemented, can verify the transaction occurred in eSewa ePay system by invoking a request.

System Interaction

The interactions required to complete a transaction followed by verification process are shown below:

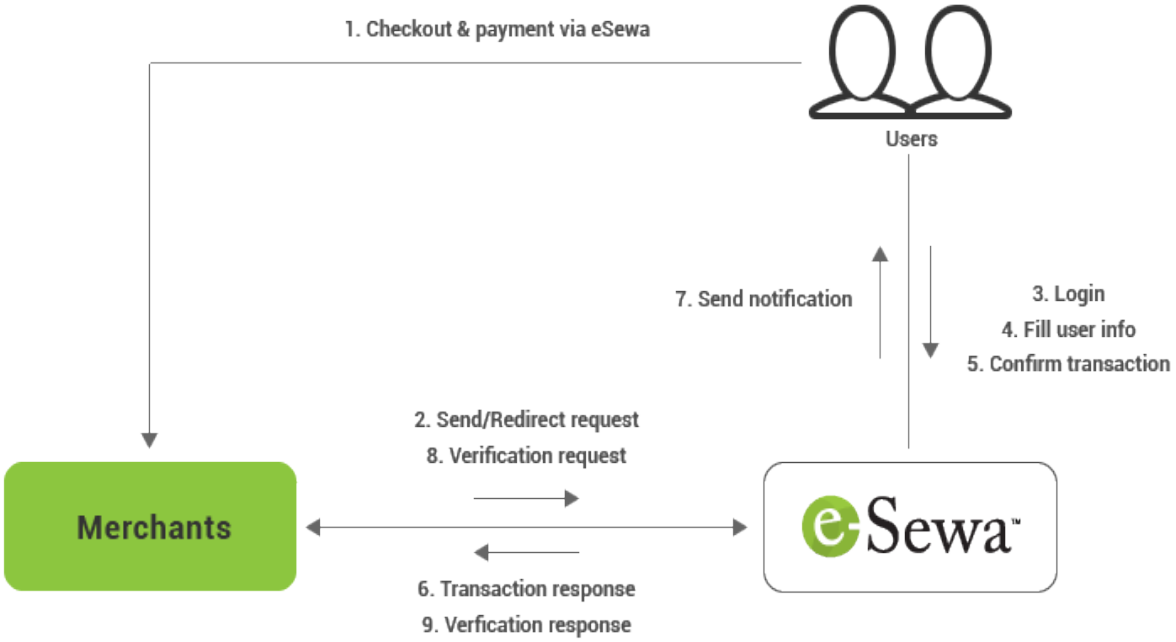

Fig 1: System interaction for payment with verification process

The scenario visualized in above figure shows an overall communication diagram end to end from client to eSewa epay system. In general, client send/redirect request to eSewa for transaction, where user login with valid eSewa credential and confirm transaction. Upon confirmation, user is redirected back to client success page.

The client can send verification request to eSewa after receiving successful transaction. The eSewa system will response back accordingly.

Chapter 2

Implementation

Implementation

Overview

eSewa ePay System integration on partner merchant's application is the process of implementing eSewa as payment option. The integration process itself is performed in two phases, namely :

1. Staging (Testing) Environment
2. Live (Production) Environment

Staging (Testing) Environment

This phase is intended to test process flow, transactions and other integration results. A test eSewa Id with password will be provided to the partner merchant to complete the transaction.

Note: Test server may be taken off-line for maintenance or other technical reasons, during which users will receive "Service Temporarily Unavailable" message. In such case, please try again later or contact eSewa staff regarding issue.

The primary objective of this stage are :

1. Whether merchant requests are getting posted onto eSewa ePay system or not.
2. Whether merchant is getting response of either a successful or failure transaction on their site.
3. Implementation and testing of verification process.

Live (Production) Environment

After successful testing phase, the partner merchant will be provided with merchant code for live environment credentials on request.

Partner merchant's have to modify the request URL and point toward live server and use live environment merchant credentials. Then, partner merchant will be able to start accepting payments using eSewa ePay payment gateway.

Integration

Transaction

The partner merchant will send transaction request to URL provided by eSewa with various parameters. Some of those parameters are required while others are optional. All parameters must not be empty or *null*, while optional parameters value should be set to default if not used.

eSewa will perform validation to check whether request parameters value are correct and in format. Validation failure will result to failure response and message, ending transaction process.

Request URL:

Test server : http://dev.esewa.com.np/epay/main
Live server : https://esewa.com.np/epay/main

Table: Transaction Request Details

Parameter	Description	Required	Default Value
amt	Amount of the product/item	True	
txAmt	Tax amount on the product/item	False	0
psc	Service charge on product/item.	False	0
pdc	Delivery charge on product/item.	False	0
tAmt	Total amount of the product/item including tax & charges. i.e : ***tAmt = amt + txAmt + psc + pdc*** *100 = 90 + 10 + 0 + 0*	True	
scd	Merchant/service code provided by esewa.	True	
pid	A unique ID representing product/item.	True	
su	Success URI: a URI to redirect after successful transaction in eSewa.	True	
fu	Failure URI: a URI to redirect after failed transaction in eSewa	True	

Example Request Code

```
<form action = "http://dev.esewa.com.np/epay/main" method="POST">
        <input value="100" name="tAmt" type="hidden">
        <input value="90" name="amt" type="hidden">
        <input value="5" name="txAmt" type="hidden">
        <input value="2" name="psc" type="hidden">
        <input value="3" name="pdc" type="hidden">
        <input value="testmerchant" name="scd" type="hidden">
        <input value="XYZ-1234" name="pid" type="hidden">
        <input value="http://abc.com/success.html?q=su" type="hidden" name="su">
        <input value="http://abc.com/failure.html?q=fu" type="hidden" name="fu">
        <input value="Submit" type="submit">
</form>
```

For every successful transaction, eSewa will redirect user to success URI provided by partner merchant. The redirected URI will contain response query string.

Response Parameters

Parameter	Description
oid	Order or Product Id
amt	Transaction total amount
refId	Unique reference Code from by eSewa

Example Response URI

```
http://yoursite.com/success?q=su&oid=XYZ1234&amt=100&refId=000AE01
```

Transaction Verification

The partner merchant can send verification request for each successful transactions with various parameters. All parameters are required. The partner merchant will receive either "Success" or "Failure" message on response.

The "Success" response message means transaction with given parameters is valid in eSewa while "Failure" means it is void/invalid.

Request URL:

Test server : http://dev.esewa.com.np/epay/transrec
Live server : https://esewa.com.np/epay/transrec

Request Method: POST/GET

Request Parameters

Parameter	Description	Required
amt	Total amount	True
pid	A unique product ID used during transaction	True
rid	Unique reference Code from eSewa for successful transaction	True
scd	Merchant/service code provided by esewa	True

Example Request Code:

```
<form action = "http://esewa.f1dev.com/epay/transrec" method="POST">
        <input value="100" name="amt" type="hidden">
        <input value="testmerchant" name="scd" type="hidden">
        <input value="XYZ-1234" name="pid" type="hidden">
        <input value="000AE01" name="rid" type="hidden">
        <input value="Submit" type="submit">
</form>
```

Success Response

```
<response>
<response_code>
Success
</response_code>
</response>
```

Failure Response

```
<response>
<response_code>
failure
</response_code>
</response>
```