



CBE Birr Plus

Mini App Integration Guideline

We appreciate your interest in integrating your solution with our CBE Birr Plus Application. Please review the document for easy integration.

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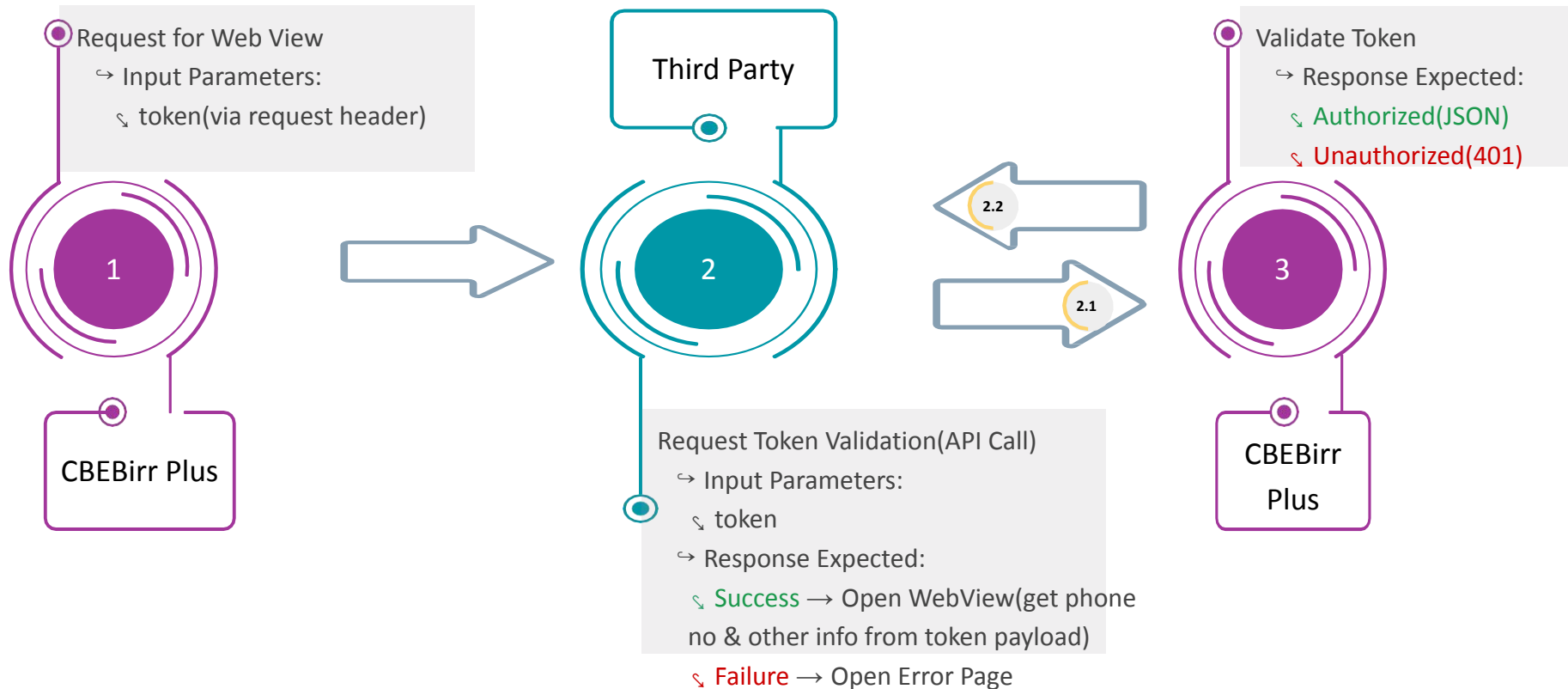


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01

Communication Check





In this step you will be receiving Token from our app to confirm whether the request is from CBE Birr or not.

N.B when you make send us url please make sure it is web url not api because when we open your url we will create communication channel that we will be using to share payment information.

1.1 Accepting Token

the token will be sent through header with key Authorization and scheme bearer. so you will need to extract the token.

1.2 Validating Token

once you get the token you have to validate whether the request is initiated from CBE Birr or not. to do that you need to send request as follows

```
http.get(Uri.parse("https://cbebirrpaymentgateway.cbe.com.et:8888/auth/user"),headers: {  
  "content-type": "application/json",  
  "accept": "application/json",  
  "Authorization":"Bearer $token"}})
```

if the Token is valid you will get status code 200 with JSON response looking like

```
{"phone":phoneNumber}
```

but if the Token is not valid you will get status code 401

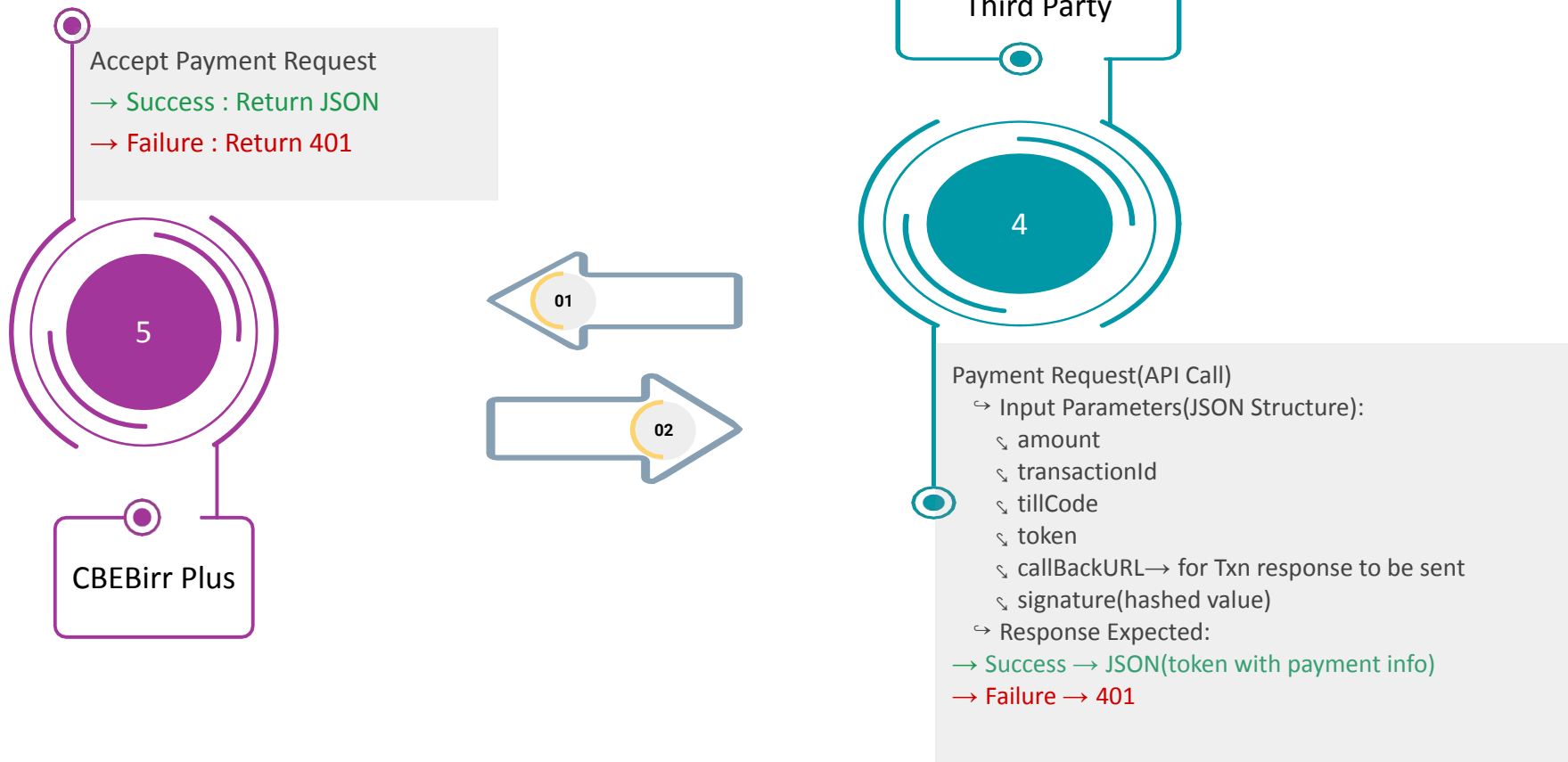


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02

Processing Transaction 1





In this step you will be Generating Transaction Information.And You will send it to our api then we will check whether the data integrity is kept or not.

2.1 Preparing data to be sent

prepare all the necessary data to be sent.The data to be sent are:

- | | |
|-----------------|-------------------|
| ★ Amount | ★ TransactionTime |
| ★ TransactionId | ★ CompanyName |
| ★ TillCode | ★ Token |
| ★ CallBackURL | |

2.2 Preparing Hashing Payload

Prepare your payload with your data as follows for hashing

```
payload={"token": token,  
  "callBackURL":callbackurl,  
  "amount":amount ,  
  "companyName":CompanyName,  
  "transactionId":transactionId,  
  "tillCode":tillCode,  
  "key":Hashingkey,  
  "transactionTime":TransactionTime,}
```



2.3 Rearranging Payload and hashing

Now prepare a Method that has the following functionalities

2.3.1 the method should Sort the inputted payload with the key as follows

```
newPayload={  
  "amount":Amount,  
  "callBackURL":Callbackurl,  
  "companyName":CompanyName,  
  "key":Hashingkey,  
  "tillCode":TillCode,  
  "token":Token,  
  "transactionId":TransactionId,  
  "transactionTime":TransactionTime,  
}
```

2.3.2 the method should Convert the above sorted map to the following String and return that string

```
processedPayload="amount=Amount&callBackURL=Callbackurl&companyName=CompanyName&key=Hashingkey&tillCode=TillCode&token=Token&transactionId=TransactionId&transactionTime=TransactionTime"
```

2.3.3 Now Hash the Above processedPayload With the Hashing algorithm we provide

N.B CompanyName and HashingKey will also be provided in private



2.4 Preparing final payload

Now prepare a Method that has the following functionalities

```
newPayload={  
  "amount":Amount,  
  "callbackURL":Callbackurl,  
  "companyName":CompanyName,  
  "signature":HashedValue,  
  "tillCode":TillCode,  
  "token":Token,  
  "transactionId":TransactionId,  
  "transactionTime":TransactionTime,  
}
```

2.5 Sending the final payload to be Processed

once you finished step 2.4 send the data to our servers to be processed. to do that you need to send request as follows

```
http.Post(Uri.parse("https://cbebirrpaymentgateway.cbe.com.et:8888/auth/pay"),body:newPayload)
```

if the data you have sent is valid you will receive status code 200 with response data as follows

```
{"token":ProcessedPaymentToken}
```

but if the data you have sent is not valid you will get status code 401

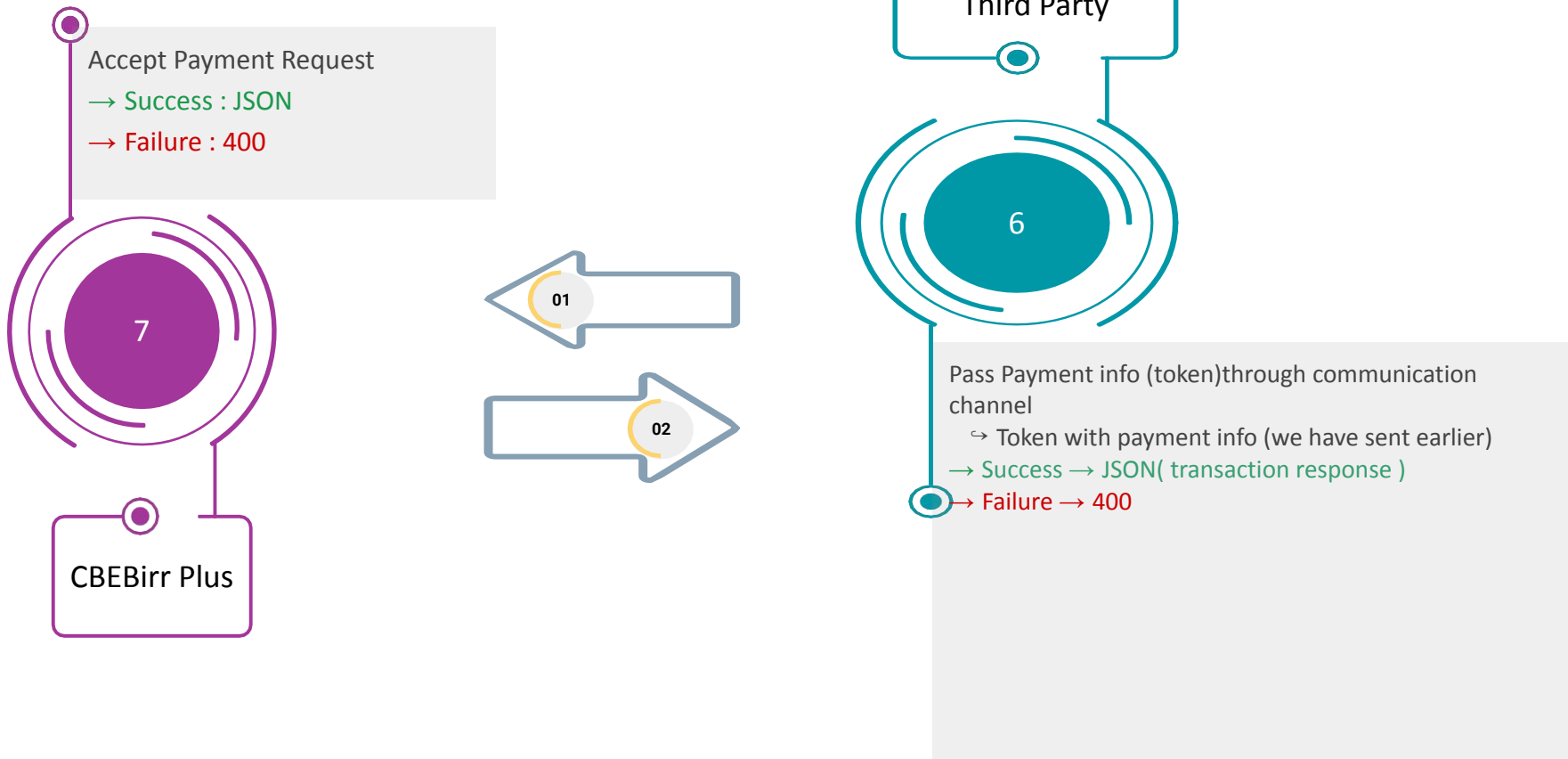


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03

Processing Transaction 2

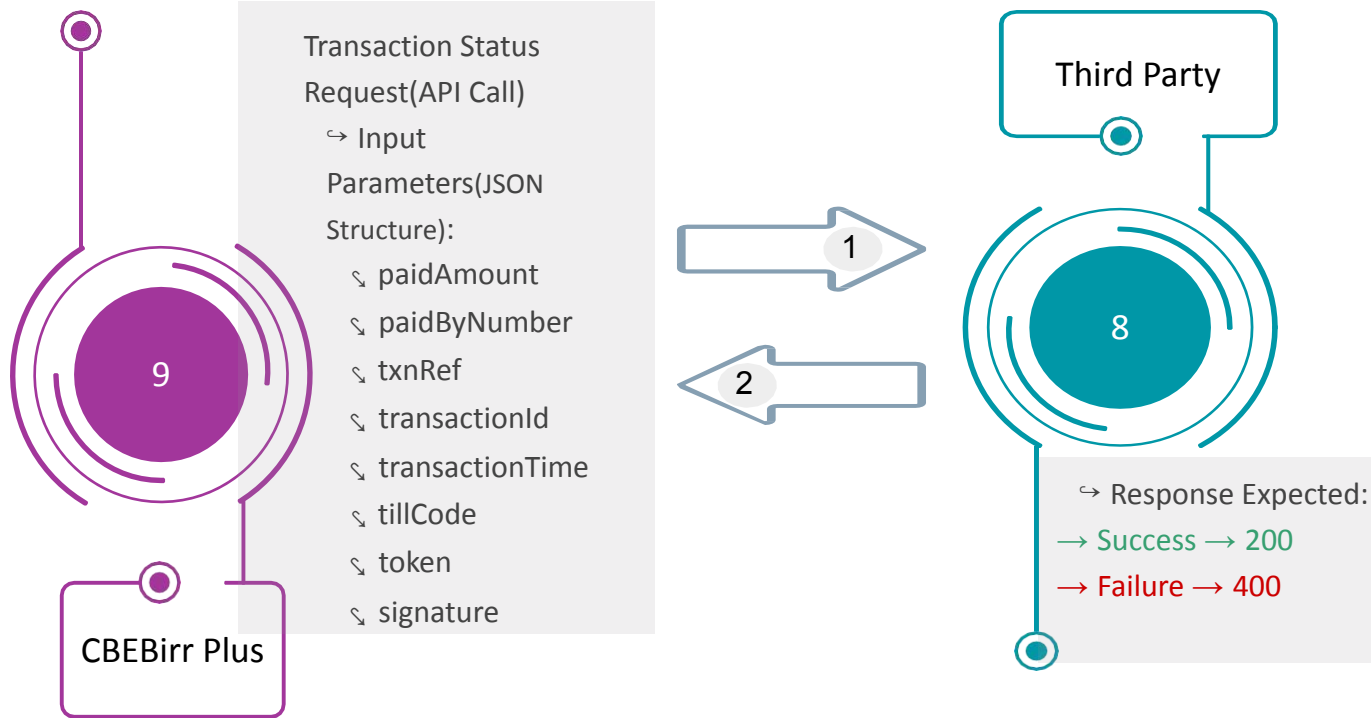




In this step you will be sending the processed payment token to the CBEBirr app. To do this we will be using communication channel that was created when your website is being opened from our application. to do this use the following javascript sample code.

```
window.myJsChannel.postMessage(data);
```

after this the mobile app will take over to process the transaction





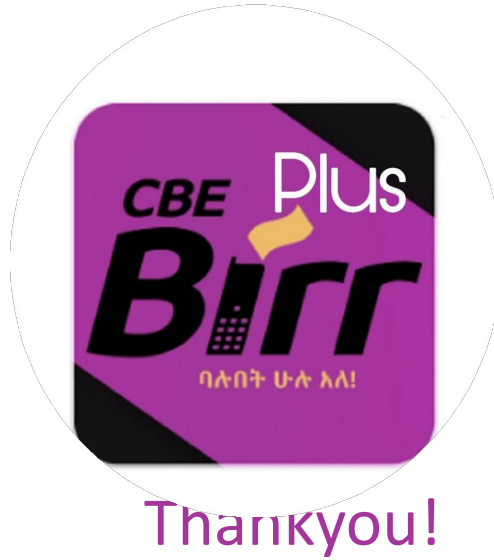
In this step we will send you transaction details that are completed successfully through the callbackurl you provided earlier so that you will be able to get a full information on successful transactions.we will send you as per below.

```
{
  "paidAmount":paidAmount,
  "paidByNumber":paidByNumber,
  "txnRef":txnRef,
  "transactionId":transactionId,
  "transactionTime":transactionTime,
  "tillCode": tillCode,
  "token":token,
  "signature":signature,
}
```

Since the request have authorization header containing a token make sure to validate the token you get from header.you will validate the token by following the same procedure as step1.

After validating the token make sure to check the signature we are sending and the signature you produce is the same to ensure secure communication is taking place.

After utilizing the data sent make sure to send us the response(status code).



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