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Merchant Integration Document

Net Banking / Internet Payment Gateway

atom™
payment solutions for every business

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1. Background:

This note briefly describes the mode/ manner of technical integration between Atom Payment Gateway and Merchant website in respect of powering online transactions.

2. Electronic Payment Interface:

Atom offers electronic payment interface services to merchant organizations through its partnership with various banks and card companies.

The Electronic Payment Interface (EPI) is an API provided by atom Technologies on its

Paynetz platform to facilitate electronic commerce transactions.

This facility allows for the end users to make electronic payment through credit card and online net banking accounts.

Atom also provides a Merchant Console that support various features including transaction settlement reports, query module, refund module.

3. Process Flow:

This section briefly details the overall customer transaction flow.

Transaction Process

- Customer logs-in at the merchant website and selects the product / service to purchase. Based on the purchase amount, appropriate transaction amount would be computed at the merchant website.
- Customer then decides to make payment at merchant website.
- Merchant website will log the order by generating a unique Order Number; and establish a connection with the Atom Electronic Payment Interface [**refer the section on Payment Request**].
- The customer lands on the **Atom Payment Page** where the customer is displayed with various 'payment options' that can be used. These would include–Credit Card; Debit Card; Online Net Banking.
- Customer chooses the payment option at **Atom Payment Page**, and is further redirected to the page of that respective bank. Customer then enters the relevant authentication details [ie, User ID/ Card Number/ Password] at the bank's website; and then is requested to authorize the payment amount.
- Customer's account is debited and the Customer is then redirected back to the designated Return URL at Merchant website where the status of the transactions is displayed to the customer.
- The Atom Electronic Payment Interface will provide the **return response** to the designated Merchant return URL. Merchant can use this response to update its system and display the transaction status to the customer.

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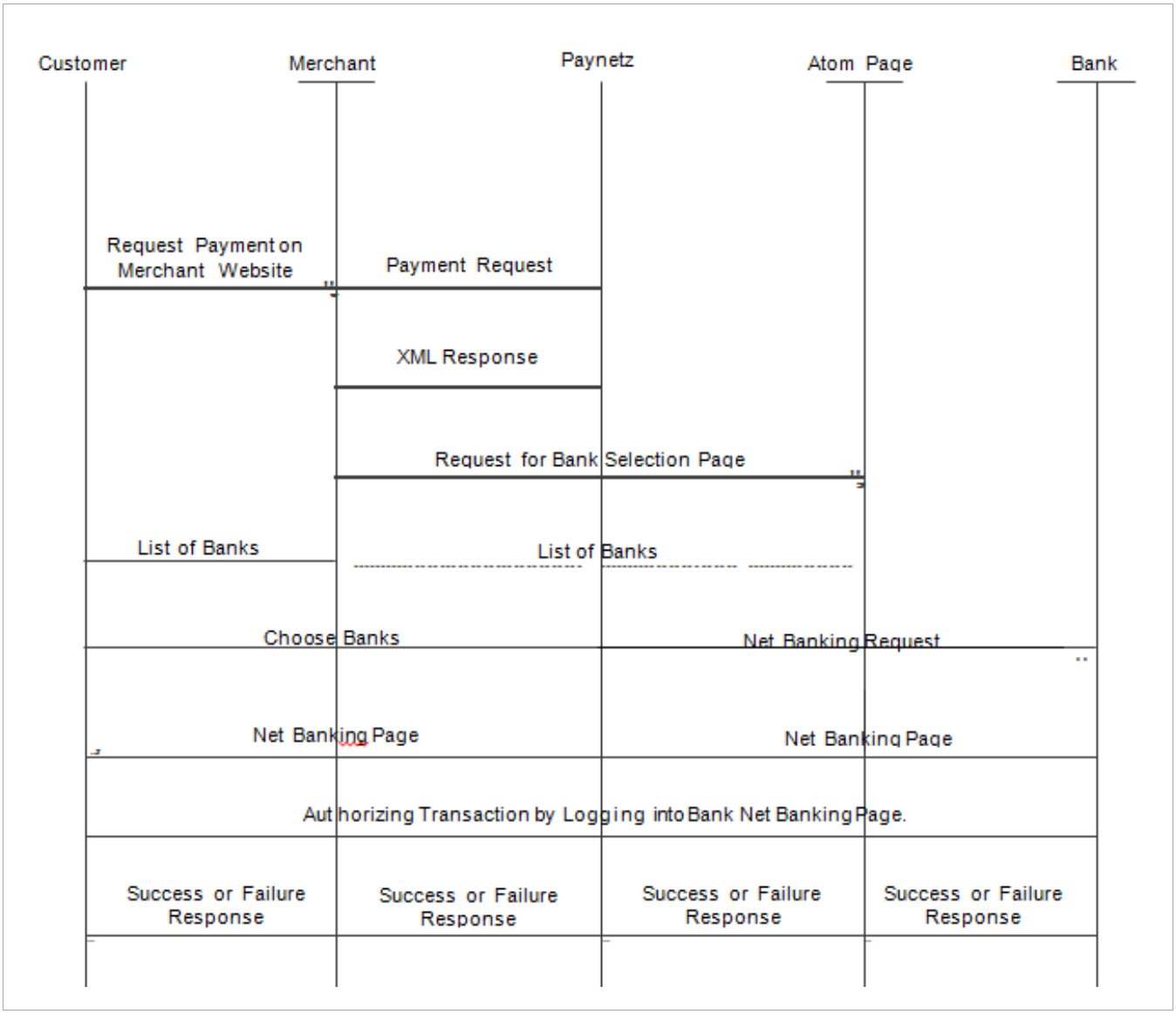
- The Atom Electronic Payment Interface also generates a **unique Transaction ID** against each order number that is received.

Transaction Process Flowchart



4. Technical Integration Process:

Key aspects of the integration between the Merchant website and Atom are described in the paragraphs below.

After the customer clicks on PAY [within Merchant website], the merchant initiates the payment by generating a request using Atom Electronic Payment Interface (EPI) by sending a POST method request to the URL.

To make the payment request call secure, we have dual payment request system. The first request will be server to server. The merchant's server will push request to Atom Electronic Payment Interface (EPI) server. Here Atom Electronic Payment Interface (EPI) will issue a token and a temporary transaction id for each request in xml response back to merchant. This token & temporary transaction id needs to be posted in second request, which will be browser to browser request. Atom Electronic Payment Interface (EPI) will authenticate the browser request based on token & temporary transaction id & post authentication, the customer will be redirected to Payment option page where the list of banks / credit cards are available to make payment.

Suggest completing integration using staging server before moving on to production.

Server Details:

Test Server Details:

- **URL:** https://paynetzuat.atomtech.in/paynetz/epi/fts
- **Port for https:** 443 for Test Server

Test Server Credentials:

- **Login ID:** 160
- **Password:** Test@123
- **Product ID:** NSE

Production Server Details & Credentials

- https://<Domain Name>/paynetz/epi/fts
- **Domain Name:** Will be shared at the time of production movement
- **Credentials:** Will be shared at the time of production movement
- **Product ID:** Will be shared at the time of production movement

Changes required moving from test server to production

- **Port for https:** 443 for Production Server
- **Server IP**: Domain Name
- **Login & Password**
- **Product ID**

Payment Request - First Request

Parameter Details for First Payment request

A brief explanation of parameters is below:

Parameter Name	Parameter Description	Field	Field Type	Length	Sample Value	Explanation
login	Login ID obtained on registration of Merchant URL's and IP	Mandatory	Numeric		Provided by atom	Fixed Value
pass	Password obtained on registration of Merchant URL's and IP	Mandatory	Alphanumeric	8-20	Provided by atom	Password as set by merchant
ttype	NB Fund Transfer in this parameter	Mandatory	Alpha		NBFundTran sfer	NBFundTransfer for all transactions. If the card details are captured by merchant then 'CCFundTransfer'
prodid	Product ID as decided and approved by the Merchant	Mandatory	Alphanumeric	45	NSE' can be used for Testing Purposes.	Based on merchant integration understanding. The possible values for this field will be shared by Atom at the time on production movement
amt	Transaction Amount	Mandatory	Numeric		Transaction Amount, min should be Rs.50.00	Rs.ps format upto to 2 decimal places
txncurr	Currency	Mandatory	Alpha	3	INR	Fixed Value
txnscamt	Transaction Service Charge Amount. Charged by the merchant.	Mandatory	Numeric		"0"	Fixed Value
Clientcode	Client code	Mandatory	Alphanumeric	45	Identifier of the end customer. If identifier is not available then always pass a standard Value. Base64 Encryption needs to be used.	As passed by merchant, encoded with base 64.
txnid	Merchant's	Mandatory	Alphanumeric	50	Unique	As passed by merchant, unique

	Transaction ID				Transaction ID generated by the Merchant	transaction id
date	Date of Transaction	Mandatory	Numeric		Exact date and time stamp	DD/MM/YYYY HH:MM:SS
custacc	Customer's Account No	Mandatory	Numeric	45	Always pass a standard 10-12 digits value. E.g. 1234567890	Used for Broker integration. In normal integration Always pass a standard 10-12 digits value. E.g. 1234567890
mdd	Application Identifier	Optional	Alpha	300	See table Below	If no values passed then all banks /credit card options enabled for merchant will be displayed to the customer on Atom payment option page. See Table below for all Possible values
ru	Return URL	Optional	Alphanumeric	200	URL on which merchants needs the transaction status	If no values passed in this filed than the trx respose will be posted to the default merchant URL configured in atom's system.
udf1	Customer Name	Optional	Alphanumeric	45	Name of end customer	Mandatory in case of Prepaid Wallet
udf2	Customer Email ID	Optional	Alphanumeric	100	Email ID of end customer	Mandatory in case of Prepaid Wallet
udf3	Customer Mobile No	Optional	Numeric	10	Mobile No of end customer	Mandatory in case of Prepaid Wallet
udf4	Billing Address	Optional	Alphanumeric	200	Billing address of end customer	
udf5	Merchant Data	Optional	Numeric	45	Only for EMI merchant	Bank names
udf6	Merchant Data	Optional	Numeric	45	Only for EMI merchant	EMI tenures
udf9	Merchant Data	Optional	Alphanumeric	500	Echo back Parameter	Treated as Echo back parameter for merchant in respose from Atom

Possible Values for Parameter 'mdd' –

Field Value	Effect on Payment option Page
NB	In case the merchant wishes to show only Net Banking as payment option to customer.
CC	In case the merchant wishes to show only Credit Cards as payment option to customer.
DC	In case the merchant wishes to show only Debit Card as payment option to customer.
IMPS	In case the merchant wishes to show only IMPS as payment option to customer.
AMEX	In case the merchant wishes to show only American Express as payment option to customer.
VISADC	In case the merchant wishes to show only VISA Debit Card as payment option to customer.
WALLET	for Atom prepaid wallet

Sample URL for First Payment Request

Merchant website will log the order by generating a unique Order Number; and establish a connection with the Atom Electronic Payment Interface

Sample URL for Staging Server which needs to generate by Merchant integrated module

https://paynetzuat.atomtech.in/paynetz/epi/fts?login=<loginid>&pass=<password>&ttype=NBFundTransfer&prodid=NSE&amt=<amount>&txncurr=INR&txnscamt=0&clientcode=07&txnid=<transactionid>&date=<transactiondate>&custacc=1234567890&udf1=<Customer Name>&udf2=<CustomerEmail ID>&udf3=<Customer Mobile No>&udf4=<Billing Address>&ru=<return url>

Note: udf parameters are required to be captured from customer and need to pass in the request else the same will be captured on payment page.

Client Code Logic

While sending first request to atom, value sent in client code needs to be converted in to base64 encoding.

https://paynetzuat.atomtech.in/paynetz/epi/fts?login=<loginid>&pass=<password>&ttype=NBFundTransfer&prodid=NSE&amt=<amount>&txncurr=INR&txnscamt=0&clientcod=TkFWSU4%3d&txnid=<transactionid>&date=<transactiondate>&custacc=1234567890&udf1=<Customer Name>&udf2=<Customer Email ID>&udf3=<Customer MobileNo>&udf4=<Billing Address>&ru=<return url>

In the above URL the client code is NAVIN, this is Base64 encoded which gives TkFWSU4=
and this in turn is URL Encoded which gives TkFWSU4%3d

Sample XML Response

Upon sending the 1st request in the format specified above, a response in XML format is obtained. This needs to be parsed to obtain the relevant information. A sample XML response is as shown below.

```
<?xml version="1.0" encoding="UTF-8" ?>
<MMP>
<MERCHANT>
<RESPONSE>
<url>https://paynetzuat.atomtech.in/paynetz/epi/fts</url>
<param name="ttype">NBFundTransfer</param>
<param name="tempTxnId">2418</param>
<param name="token">ClT6Sr4mjGhvFpsiBaUwaorib62ihEwLUh69hNKBUAE%3D</param>
<param name="txnStage">1</param>
</RESPONSE>
</MERCHANT>
</MMP>
```

Payment Request - Second Request

This XML has to be parsed and a request has to be sent in form of a 2nd URL. The parameter values have to be populated from the XML.

Parameter Details for Second Payment Request

Sr. No.	Parameter Name	Parameter Desc. / Value
1	url	URL to which the request is to be sent
2	ttype	NBFundTransfer
3	tempTxnId	A temporary value to map to the token.
4	token	An encoded token to validate the request. The details to be taken from the XML response of the 1st URL.
5	txnstage	Used to identify at what stage the transaction is

Sample URL for Second Payment Request

https://paynetzuat.atomtech.in/paynetz/epi/fts?ttype=NBFundTransfer&tempTxnId=2418&token=ClT6Sr4mjGhvFpsiBaUwaorib62ihEwLUh69hNKBUAE%3D&txnStage=1

After submitting 2nd request, the customer will be redirect to atom page where Net Banking / Credit / Debit Card options will be available for making the payment.

(On staging server, you will have bank as Atom Bank on Net Banking option, using which you can complete the development of integration module by simulating success / failure response.

After production movement, the agreed banks / credit Card / debit card options will be available for payment.)

5. Payment Response

After the Customer chooses the payment option at Atom Payment Page, he/she is further redirected to the page of that respective bank. Here customer authorizes the payment by giving the relevant authentication details. Post authentication the customer's account is debited & the bank gives the transaction response to Atom Electronic Payment Interface (EPI). The confirmation from the Bank (success / failure) will be posted back to the URL provided by the Merchant. The Merchant needs to design to display appropriate message on the web page.

Response Posting Parameters

The below are the posting parameters, that atom will post back on to return URL of the merchant:

Parameter Name	Parameter Description	Parameter Sample Value
mmp_txn	atom transaction ID. The ID is generated by atom	1111492
mer_txn	Merchant's transaction ID	1
amt	Amount	100.00
surcharge	Amount of Surcharge	100.00
prodid	Product ID. For testing you can use "NSE", for Production Purposes merchant can suggest the name.	NSE
date	Date & Time Stamp of the Transaction	Fri May 14 12:03:24 IST 2010
bank_txn	Bank Transaction ID. This ID is generated by the Bank	11114921
f_code	OK for Successful transaction , F for Failed Transaction	Ok
clientcode	Client code needs to be Passed by the merchant. This field is to identify the customer. In case customer logins in to perform transaction, his user id or customer id can be passed otherwise you can send a constant value.	Mt012
bank_name	Bank on which customer performed transaction. In case of credit/debit card transactions, bank name will be received as Atom Bank. For testing it will be a single bank called "Atom Bank".	Atom Bank
discriminator	Payment channel	NB (**See Table below for all Possible values)**
CardNumber	Masked card number for Credit card / Debit card trx or blank in case of NB / IMPS	401288XXXXXX1881
udf1	Customer Name	As passed by merchant while initiating transaction
udf2	Customer Email ID	As passed by merchant while initiating transaction

udf3	Customer Mobile No	As passed by merchant while initiating transaction
udf4	Billing Address	As passed by merchant while initiating transaction
udf5	Merchant Data	As passed by merchant while initiating transaction
udf6	Merchant Data	As passed by merchant while initiating transaction
udf9	Merchant Data	As passed by merchant while initiating transaction
desc	This filed contains the transaction failure reason in case of Card transaction. This filed is not mandatory. If no values passed by the bank, this filed will not be posted in response.	Card Expired

Possible Values for Parameter 'discriminator' –

Value	Payment Channel
NB	Net banking
CC	Credit Cards
DC	Debit Card
IM	IMPS
MX	American Express Cards

6. Transaction Tracking URL:

The transaction Tracking URL is the tracking device provided to merchant to:

- Reconfirm on the online real time transaction status received
- Check the status of the transaction for which the online real time transaction response is not received by the merchant due to various reasons as session timed out, dropped transaction etc.

The Merchant can hit the atom Paynetz system through Transaction Tracking URL after 15 minutes of the transaction that was initiated.

Parameters details for Tracking URL

Parameter Name	Description
merchantid	Merchant ID provided by atom
merchanttxnid	Unique transaction ID sent by the merchant after the first transaction request was initiated
amt	Transaction amount
tdate	Transaction date in YYYY-MM-DD format

Sample URL for Tracking URL

Request format for tracking URL on staging server

https://paynetzuat.atomtech.in/paynetz/vfts?merchantid=160&merchanttxnid=1015&amt=100.00&tdate=2012-08-11

Response from tracking URL

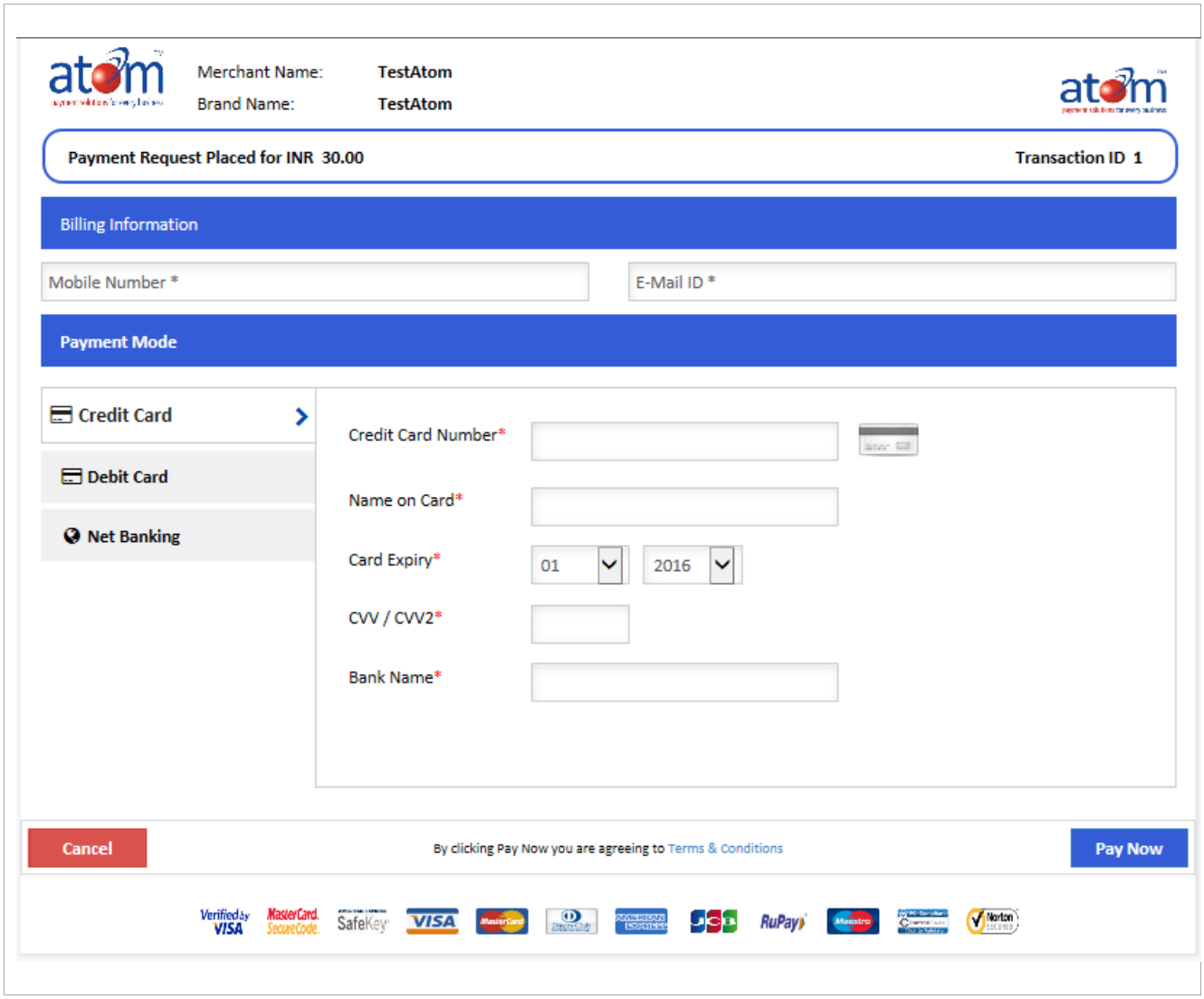
Parameter Name	Description
MerchantID	Merchant ID provided by atom
MerchantTxnID	Unique transaction ID sent by the merchant after the first transaction request was initiated
AMT	Transaction amount
VERIFIED	**SUCCESS** – in case of success transaction. **FAILED** – in case of failure transaction. NODATA – in case of mismatch of value in the request or atom not received response from bank. Invalid date format – in case of date format not received as YYYY-MM-DD
BID	Reference No. received from bank only for success transactions.
bankname	Bank on which customer performed transaction. In case of credit/debit card transactions, bank name will be received as "ATOM PG". In case of IMPS transactions, bank name will be received as IMPS".
atomtxnId	Transaction ID generated by atom.
atomtxnId	Transaction ID generated by atom.
discriminator	Payment Channel
CardNumber	Masked card number or blank in case of NB / IMPS
surcharge	Amount of surcharge (Transaction Fee) in Rs.Ps format

Sample Response URL for Tracking Request

<?xml version="1.0" encoding="UTF-8"?> <VerifyOutput MerchantID="160" MerchantTxnID="1015" AMT="100.00" VERIFIED="SUCCESS" BID="123456" bankname="HDFCBank" atomtxnId="665544" discriminitor="NB" CardNumber="401288XXXXXX1881" surcharge="10.00'/>

7. Atom Payment page Screens:

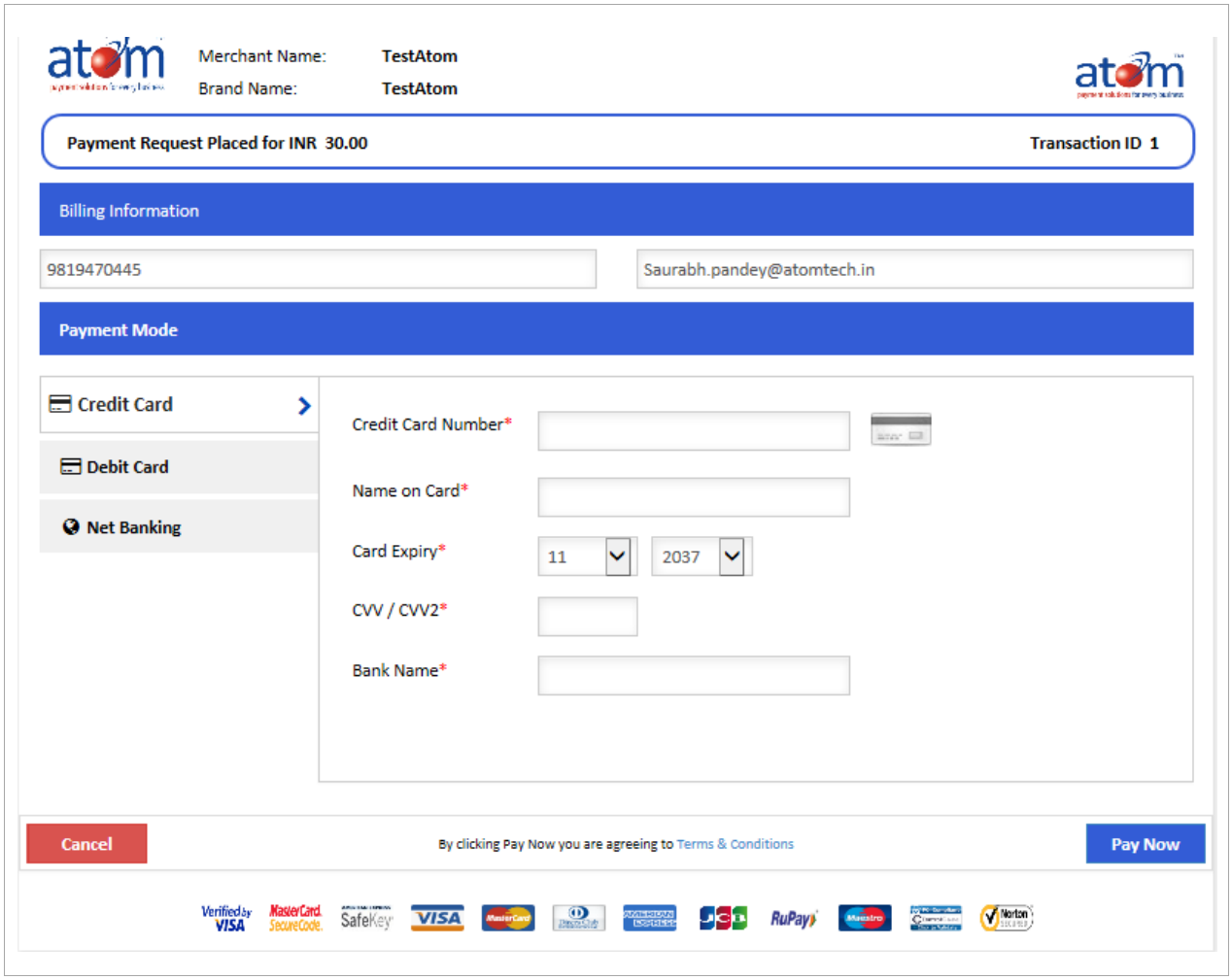
a. Payment Page



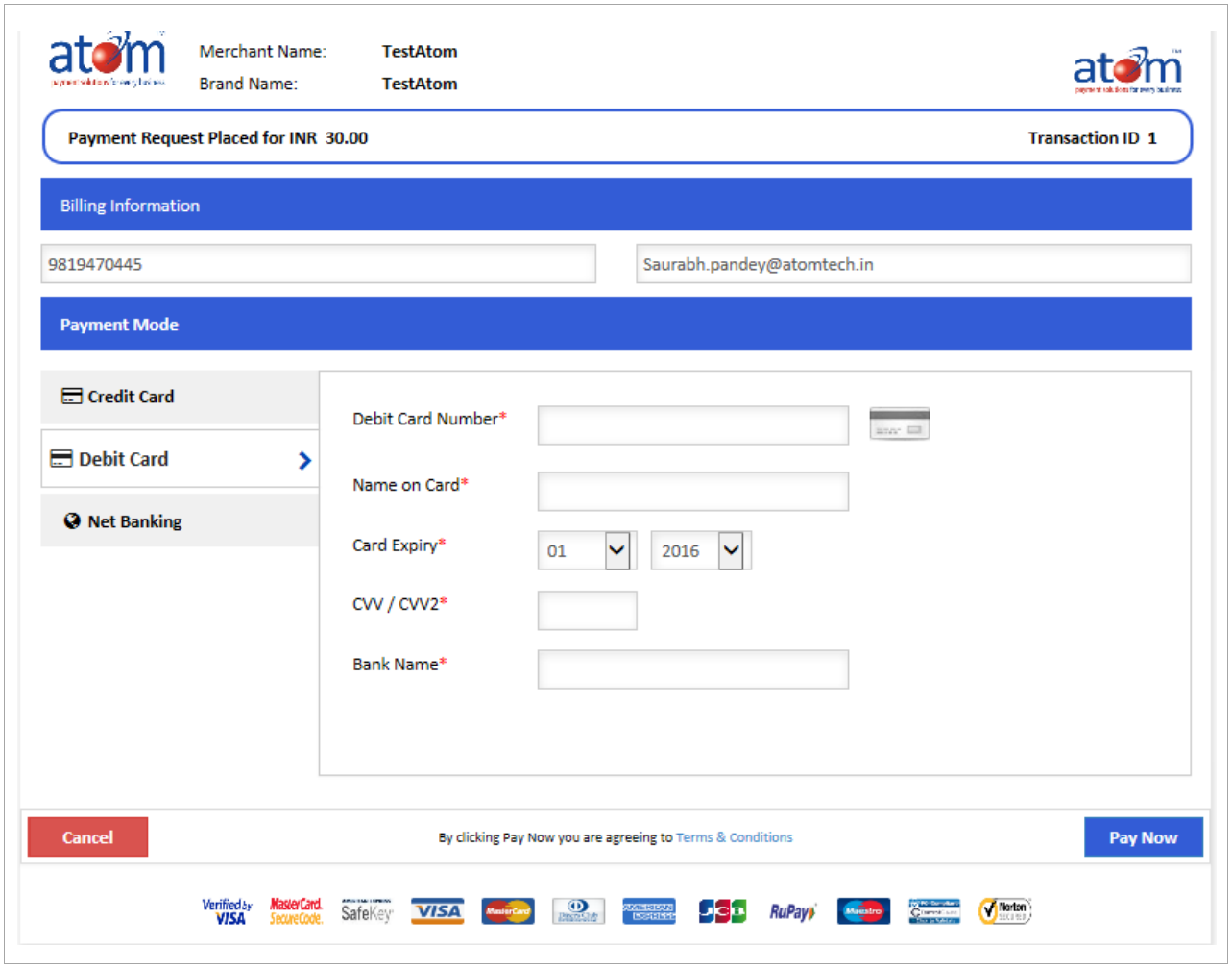
b. Customer Enters mobile number and email Id and chooses mode of payment.

[Note "It's not possible to test credit/debit card transaction on staging server, as 3D secure password needs to be entered on bank verification page, which is not available on staging server."]

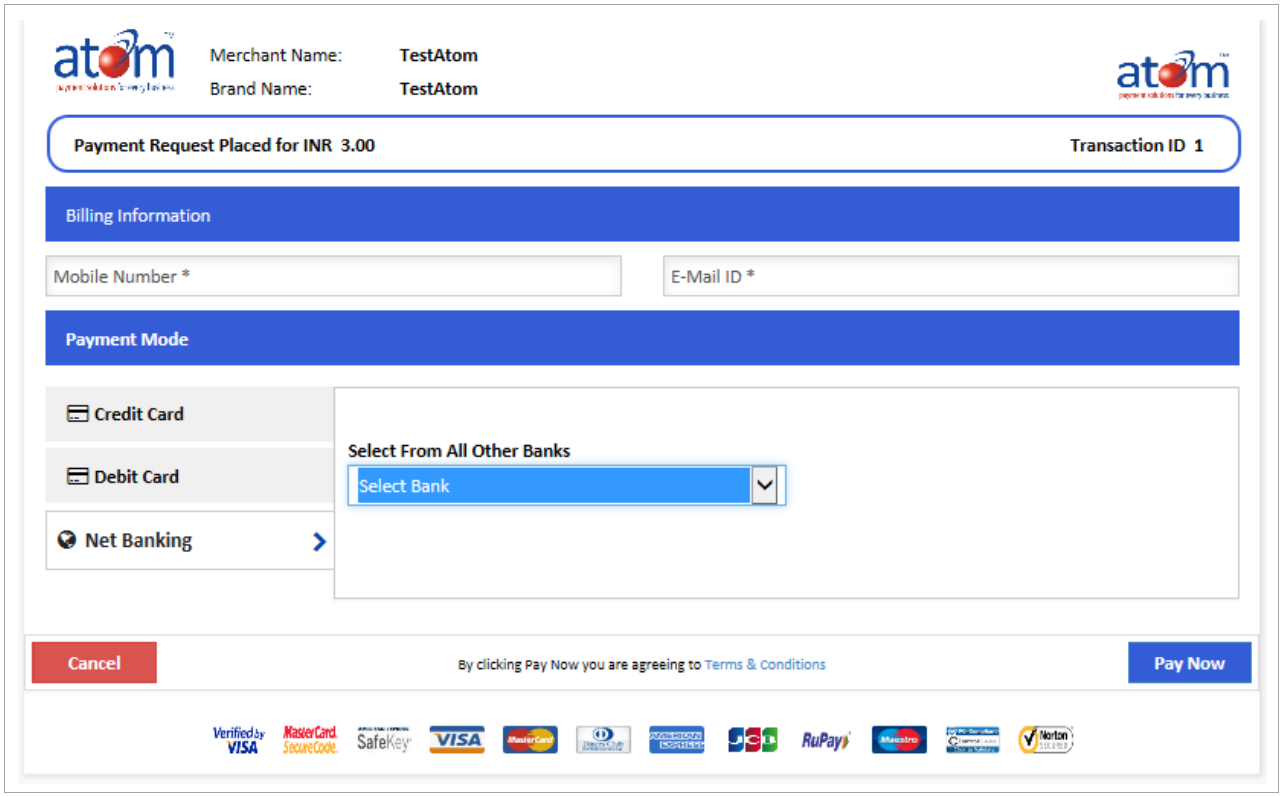
i. Credit Card



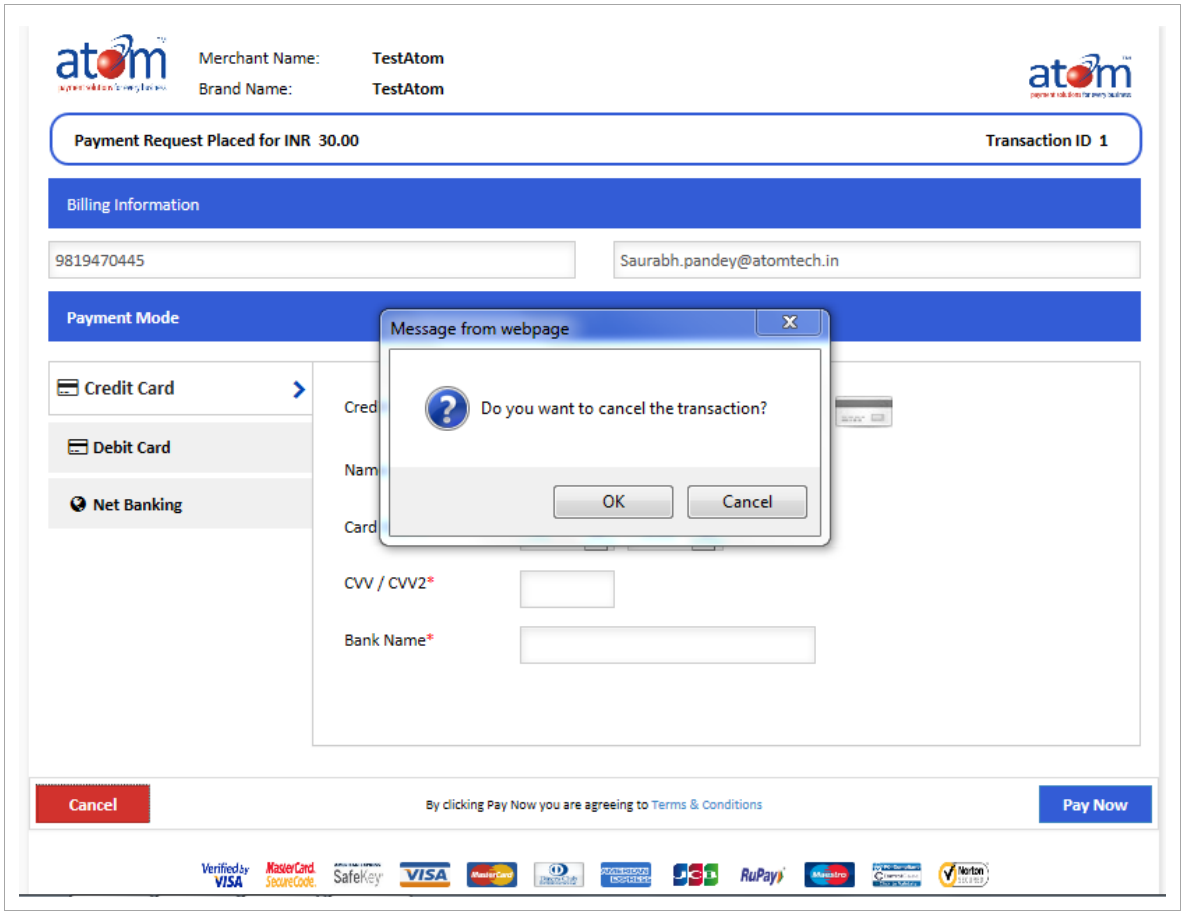
ii. Debit Card



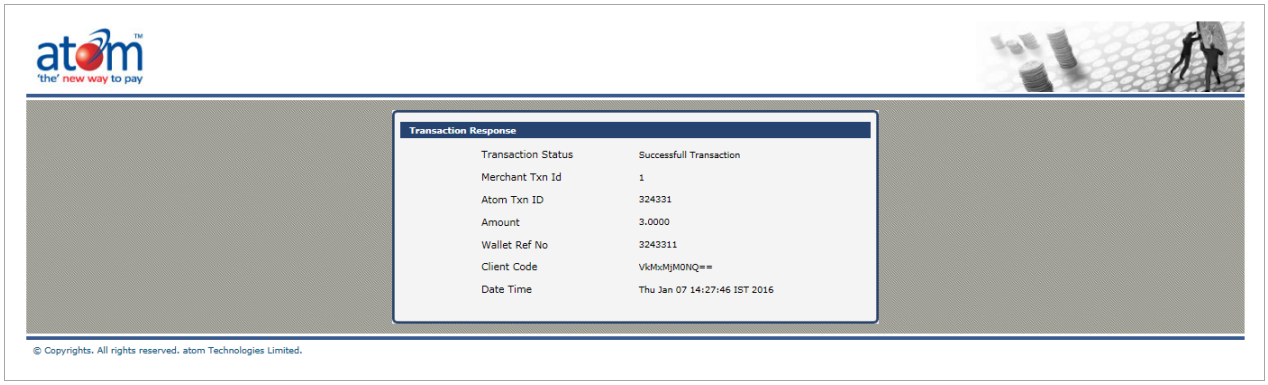
iii. Net Banking



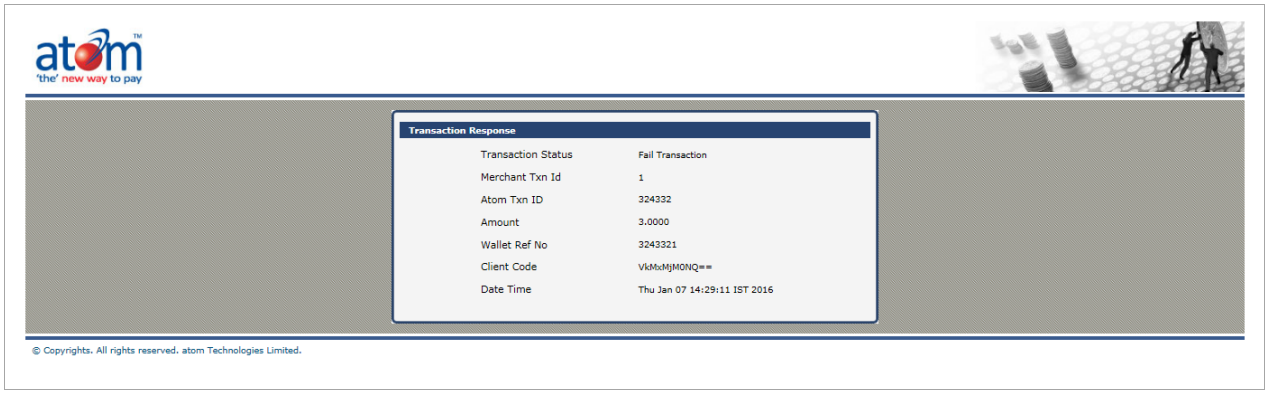
iv. Cancel Transaction



v. Transaction Response: Success



vi. Transaction Response: Fail



8. UAT Test Credentials:

1. **Netbanking**: Atom has created a stimulator bank called atom bank You can select atom bank which will redirect you to a page which will have options of success and failure depending upon the selection response will be send to your return Url.

2. **Credit card**:
   Card number: 4012 8888 8888 1881
   Expiry:12/25
   Cvv:456

3. **Debit card**:
   Card Number:5555 5555 5555 4444
   Expiry 12/16
   Cvv:123

4. **IMPS**
   MMID:1234567
   Mobile number : any
   OTP: 123456

5. **Atomz:**
   MobileNumber:9702162999
   Password:Mota@123