

Direct to Account Specification



Interswitch - CONFIDENTIAL

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1 OVERVIEW

1.1 Objective

This document describes the Interswitch direct to account API specifications.



2. Access Token

A url will be provided by the client via which Interswitch will make a request to generate an access token for authorization.

Resource url: {{host}}/api/v1/oauth/token

2.1 Access Token Endpoint (Sent from Interswitch)

S/N	Key	Value	Description
1	Authorization	Basic {{base64Encoded(clientId:clientSecret)}}	clientId:clientSecret is base64 encoded e.g Y2xpZW50OnNIY3JldA==
2	Content-type	application/x-www-form-urlencoded	
3	Grant-type	client_credentials	

2.2 Access Token Response (Sent to Interswitch)

S/N	Key	Value	Description
1	access_token	access_token	Bearer access token
2	token_type	bearer	Access token generated is of type 'bearer'
3	Expires_in	3600	Time in seconds (Access token expires in 1 hour)



Sample Response

```
{
  "access_token": "eyJhbGciOiJSUzI1NiJ9.eyJhdWQiOiYXJiaXRlcilslmNhZXNhciIsImhpbXMtcGucyls...",
  "token_type": "bearer",
  "expires_in": "3600"
}
```



3. Account Debit

This method will accept certain parameters and returns a response based on the status of the transaction.

Resource uri: POST {{host}}/api/v1/accountdebit/transactions

3.1 Account Debit Request Parameters (Sent from Interswitch)

S/N	Data Element (DE)	Data Type	Required	Description
1	destinationAccount	String	Yes	Destination Account Number
2	destinationBankCode	String	Yes	Destination Bank Code
3	sourceAccount	String	Yes	Account number to be debited
4	amount	String	Yes	Amount to be transferred (Minor: 5000 is equivalent to 50 naira)
5	transactionId	String	Yes	Unique Identifier for the transaction
6	sourceAccountName	String	Yes	Name of Source Account
7	destinationAccountName	String	Yes	Name of Destination Account



3.2 Account Debit Request Headers (Sent from Interswitch)

The header should contain a bearer authorization which is valid for only 24 hours signed with a shared secret.

S/N	Key	Value	Description
1	Authorization	Bearer {{access_token}}	Bearer authorization
2	Signature	Base64Encoded(Sha512(amount&transactionId&secret))	Second layer authorization

Sample Request

```
{
  "destinationBankCode": "112",
  "destinationAccount": "0021489827",
  "sourceAccount": "0025806095",
  "amount": "3000",
  "transactionId": "839927jdeokwjd722",
  "sourceAccountName": "Ada Ojo",
  "destinationAccountName": "Eze Bola"
}
```

3.3 Account Debit Response (Sent to Interswitch)

The following describes the response required to be sent for a post transaction response. All fields are mandatory for successful responses.



S/N	Data Element	Data Type	Description	Required
1	responseCode	String	The response code identifying the status of transaction.	Yes
2	responseMessage	String	Response Description	Yes
3	transactionId	String	Same as transactionId in the request	Yes
4	amount	String	Amount debited (Minor: 5000 is equivalent to 50 naira)	Yes
5.	transactionDate	Datetime	Datetime transaction was made Format: yyyy-mm-dd hh:mm:ss	Yes
6.	requestReference	String	Unique Identifier for the request sent	Yes

Sample Response

```
{
  "responseCode": "00",
  "responseMessage": "0021489827",
  "amount": "3000",
  "transactionId": "839927jdeokwjd722",
  "transactionDate": "2001-02-21 02:35:45",
  "requestReference": "bbb9054hhdfsj"
}
```



4. Transaction Re-query

This method will accept the Transaction Id and return a response status of that transaction.

Resource uri: GET

{{host}}/api/v1/accountdebit/transactions?transactionId={{transaction_id}}

4.1 Transaction Re-query Parameters (Sent from Interswitch)

S/N	Data Element (DE)	Data Type	Required	Description
1	transactionId	String	Yes	ID of the transaction to query

4.2 Transaction Re-query Request Headers (Sent from Interswitch)

The header should contain a bearer authorization which is valid for only 24 hours.

S/N	Key	Value	Description
1	authorization	bearer {{access_token}}	Bearer authorization



4.3 Re-Query Response (Sent to Interswitch)

The following describes the response required to be sent for a transaction re-query response. All fields are mandatory for successful responses.

S/N	Data Element	Data Type	Description	Required
1	responseCode	String	The response code identifying the status of transaction.	Yes
2	responseMessage	String	Response Description	Yes
3	transactionId	String	Unique Identifier for transaction	Yes
4	amount	String	Amount debited (Minor: 5000 is equivalent to 50 naira)	Yes
5	transactionDate	Datetime	Datetime debit was made Format: yyyy-mm-dd hh:mm:ss	Yes

Sample Response

```
{
  "responseCode": "00",
  "responseMessage": "0021489827",
  "amount": "3000",
  "transactionId": "839927jdeokwjd722",
  "transactionDate": "2001-02-12 02:34:45"
}
```



5. Name Enquiry

This method will accept a string value of the customer's account number (NUBAN or regular) set as the CustomerID and respond with the customer's full names if the account number is valid.

5.1 Name Enquiry Request Parameters (Sent from Interswitch)

S/N	Data Element (DE)	Data Type	Description
1	CustomerID	String	Account Number

5.2 Name Enquiry Request Headers (Sent from Interswitch)

S/N	Key	Value	Description
1	SOAPAction	nameEnquiry	Soap action header

Sample Request

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
  xmlns:isw="http://techquest.interswitchng.com/nameenquiry/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <isw:NameEnquiry>
      <isw:NameEnquiryRequest>
        <isw:CustomerID>9999999999</isw:CustomerID>
      </isw:NameEnquiryRequest>
    </isw:NameEnquiry>
  </soap:Body>
</soap:Envelope>
```



5.3 Name Enquiry Response (Sent to Interswitch)

The following describes the response required to be sent for a Name Enquiry response. All fields are mandatory for successful responses.

NameEnquiryResponse Type

S/N	Data Element (DE)	Data Type	Description
1	NameEnquiryResponseResult	NameEnquiryResponseResult	Name Enquiry Response Result

NameEnquiryResponseResult Type

S/N	Data Element (DE)	Data Type	Description	Required
1	ResponseCode	String	Response Code	Yes
2	CustomerID	String	Account Number	Yes
3	CustomerName	CustomerName	Customer's Names	Yes



CustomerName Type

S/N	Data Element (DE)	Data Type	Description	Required
1	LastName	String	Customer's last name	Yes
2	FirstName	String	Customer's first name	Yes
3	OtherNames	String	Customer's other names	No

Sample Response

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2003/05/soap-envelope"
xmlns:isw="http://techquest.interswitchng.com/nameenquiry/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <isw:NameEnquiryResponse>
      <isw:NameEnquiryResponseResult>
        <isw:ResponseCode>00</isw:ResponseCode>
        <isw:CustomerID>999999999</isw:CustomerID>
        <isw:CustomerName>
          <isw:LastName>Olakunle</isw:LastName>
          <isw:FirstName>Nnamdi</isw:FirstName>
          <isw:OtherNames>Adamu</isw:OtherNames>
        </isw:CustomerName>
      </isw:NameEnquiryResponseResult>
    </isw:NameEnquiryResponse>
  </soap:Body>
</soap:Envelope>
```



APPENDIX

1.0 Response Codes

Code	Description
00	Approved or completed successfully
06	Error
09	Request in progress
13	Invalid amount
25	Unable to locate record
43	Account closed
51	Not sufficient funds
61	Exceeds withdrawal limit
65	Exceeds withdrawal frequency
94	Duplicate transaction