



Application Programming Interface

[API]

Integration Document

DOCUMENT INFORMATION

Title:	Click N Ship API Integration Document
Description:	This document gives procedures for integrating Click N Ship API with Merchants applications. It gives detailed step-by-step procedures and sample codes
Version:	Version 6.0
Prepared By:	RSE Allied Services Ltd.
Technical Contact	Niyi (emmanuelorun@gmail.com , gbtchi@yahoo.com , 08160676460)

INTRODUCTION

Click N Ship API is a restful Web API to expose some functionalities of Click N Ship to Merchants thereby empowering the Merchants to carry out operational activities exposed via the API without intervention from Red Star Express Plc. Some of the functionalities (Endpoints) exposed to Merchants are listed below:

- ✓ Obtaining Authentication Token
- ✓ Fetching States
- ✓ List of Origin and Destinations Cities
- ✓ List of Onforwarding/Delivery Towns by Destination Cities
- ✓ List of Payment Types
- ✓ List of DeliveryTypes
- ✓ Calculation of DeliveryFee
- ✓ Submission of Shipment Pickup Request
- ✓ Tracking of Shipment
- ✓ List of all Tracking Status
- ✓ Printing of Waybill
- ✓ List Merchants Shipments Status
- ✓ List of DropOffLocation
- ✓ List of PickupTypes

Detailed procedures of implementing each of the functionalities listed above are provided in the subsequent pages of this document. This document provides step-by-step procedure needed to integrate any application with Click N Ship API. Sample codes are provided on how to integrate each of the functionality.

Click N Ship API implements Token-based authentication system in which every user is expected to supply valid credentials to obtain Token with which any of the functionalities listed above can be accessed.

NOTE:

Click N Ship API implements Token based authentication in which users (Merchants application or device) is expected to login with valid login credentials (Authentication) and the API returns a Token to the client when the login is successful. The token is expected to be posted with every call to Click N Ship API endpoints and it is used to authorize the transaction.

1. Obtaining Token /Authentication & Authorization

Every user must be configured by Click N Ship API Admin personnel before such user can have access to the API. Valid Username and Password is expected to be posted to Click N Ship API authentication URI and Json object that contains the Token is returned to the client as response.

URI: <https://api.clicknship.com.ng/Token>

Request Type: POST

ContentType: application/x-www-form-urlencoded

Request Body: "username=cnsdemoapiacct&password=ClickNShip\$12345&grant_type=password";

Demo User : [cnsdemoapiacct](#)

Demo Password: [ClickNShip\\$12345](#)

N/B: Live credentials are expected to be requested after integration for merchants to be able to process live transaction through Click N Ship API.

2. Fetching available States

Available States for which shipments can be picked and delivered are made available through the API. This is necessary for the clients to be able to pick correct States for which shipments are to be sent. Response is retrieved as array of Json objects that the client application can use to populate Dropdown box from which users select desired origin and destination states.

URI: <https://api.clicknship.com.ng/clicknship/Operations/States>

Request Type: GET

ContentType: application/Json

3. Fetching All Origin Cities and Destination Cities

Available Origins and Destinations Cities for which shipments can be picked and delivered are made available through the API. This is necessary for the clients to be able to pick correct Origin and Destination for which shipments are to be sent. Response is retrieved as array of Json objects that the client application can use to populate Dropdown box from which users select desired origin and destination.

URI: <https://api.clicknship.com.ng/clicknship/operations/cities>

Request Type: GET

ContentType: application/Json

4. Fetching Cities in Specified State

Available Cities for specified State are made available through the API. Response is retrieved as array of Json objects that the client application can use to populate Dropdown box from which users select desired origin and destination.

URI: <https://api.clicknship.com.ng/clicknship/Operations/StateCities?StateName=OYO>

Request Type: GET

ContentType: application/Json

5. Onforwarding / Delivery Towns

Onforwarding /DeliveryTowns can be selected based on already selected City. These are Towns under major cities for which Click N Ship can deliver shipment through the API. Response is retrieved as array of Json objects that the client application can use to populate Dropdown box from which users select desired Onforwarding/Delivery Towns.

URI: <https://api.clicknship.com.ng/clicknship/Operations/DeliveryTowns?CityCode=ABV>

Request Type: GET

ContentType: application/Json

Sample Response: {"TownCode":"00690","TownName":"Kubwa"}

6. Calculate Delivery Fee

Delivery Fee requires the client to be authenticated and authorized before such clients can post Tariff request to the API. StarnetPro API implements Token based authentication in which users (client application or device) is expected to login with valid login credentials (Authentication) and the API returns a Token to the client when the login is successful. The token is expected to be posted with Tariff information from clients to StarnetPro API and it is used to authorize the transaction. Successful posting of Tariff information returns a Json object.

URI: <https://api.clicknship.com.ng/clicknship/Operations/DeliveryFee>

Request Type: POST

ContentType: application/Json

Sample Request Body:

{"Origin":"IBADAN","Destination":"ABUJA","Weight":"1.5","PickupType":"1"}

Optional (1 for Pickup and 2 for DropOff)

→ For Shipment without Onforwarding
Optional (1 for Pickup and 2 for DropOff)

OR

{"Origin":"IBADAN","Destination":"ABUJA","Weight":"1.5","OnforwardingTownID":"690","PickupType":"1"} → For Shipment with Onforwarding. Note that PickupType is optional and its values can be gotten from 'PickupTypes' endpoint

Sample Response: {"DeliveryFee":"2500","VatAmount":"125"," TotalAmount ":"2625"}

7. Submitting Pickup Request Information and Generation of Waybill Number

Successful posting of pickup request returns a Json objects that contains the Waybill Number of the shipment and delivery information. Failed posting returned the same Json object with the status and reason why the transaction failed.

URI <https://api.clicknship.com.ng/clicknship/Operations/PickupRequest>

Request Type: POST

ContentType: application/Json

Sample Request Body:

```
{"OrderNo":"Ord-0099838","Description":"PAIR OF SHOES AND BAGS","Weight":4.0,"SenderName":"PETER ADEOGUN","SenderCity":"LAGOS ISLAND","SenderTownID":"32","SenderAddress":"32 AJOSE ADEOGUN STREET, VICTORIA ISLAND, LAGOS","SenderPhone":"08077846453","SenderEmail":"PETER@YAHOO.COM","RecipientName":"BENSON ADEWALE","RecipientCity":"IBADAN","RecipientTownID":"45","RecipientAddress":"23 Ikorodu Road, Maryland, Lagos","RecipientPhone":"08076522536","RecipientEmail":"testemail@yahoo.com","PaymentType":"Pay On Delivery","DeliveryType":"Normal Delivery", "PickupType":"1", "ShipmentItems": [{"ItemName":"BLACK SHOE","ItemUnitCost":4500.0,"ItemQuantity":5,"ItemColour":"BLACK","ItemSize":"45"}, {"ItemName":"HAND BAG","ItemUnitCost":9000.0,"ItemQuantity":5,"ItemColour":"BLUE","ItemSize":"23"}]}
```

NOTE: "PickupType" is optional and its values can be 1 (Pickup) or 2 (Drop-Off). Also, the following attributes **must** be selected from Drop Down on your platform. The values in the DropDown are loaded from the endpoints listed against each attribute:

SenderCity: <https://api.clicknship.com.ng/clicknship/operations/cities>

SenderTownID: <https://api.clicknship.com.ng/clicknship/Operations/DeliveryTowns?CityCode=ABV>

RecipientCity: <https://api.clicknship.com.ng/clicknship/operations/cities>

RecipientTownID: <https://api.clicknship.com.ng/clicknship/Operations/DeliveryTowns?CityCode=ABV>

PaymentType: <https://api.clicknship.com.ng/clicknship/operations/PaymentTypes>

DeliveryType: <https://api.clicknship.com.ng/clicknship/Operations/DeliveryTypes>

Sample Response for Successful Transactions:

```
{
  "TransStatus": "Successful",
  "TransStatusDetails": "Shipment Pickup Request Created Successfully",
  "OrderNo": "Ord-6h838",
  "WaybillNumber": "SA00006228",
  "DeliveryFee": "2,300.00",
  "VatAmount": "115.00",
  "TotalAmount": "2,415.00"
}
```

Sample Response for Failed Transactions:

```
{
  "TransStatus": "Failed",
  "TransStatusDetails": "Order Number Already Exists",
  "OrderNo": "Ord-6h838",
  "WaybillNumber": "N/A",
  "DeliveryFee": "N/A",
  "VatAmount": "N/A",
  "TotalAmount": "N/A"
}
```

8. Tracking Shipments

Shipments can be tracked using the Waybill Number of the shipment through the API. Response is retrieved as array of Json objects that the client application can display as tracking information to users.

URI: <https://api.clicknship.com.ng/clicknship/Operations/TrackShipment?waybillno= SA00000786>

Request Type: GET

ContentType: application/Json

Sample Response:

```
[
  {
    "OrderNo": "9993219",
    "WaybillNumber": "SA00000786",
    "StatusCode": "477",
    "StatusDescription": "Pending For Pickup",
    "StatusDate": "2018-08-27T10:14:42.337"
  },
  {
    "OrderNo": "9993219",
    "WaybillNumber": "SA00000786",
    "StatusCode": "06",
    "StatusDescription": "Shipment Picked Up",
    "StatusDate": "2018-08-28T06:18:16.39"
  },
]
```


9. Fetching all available Tracking Status

All available tracking status can be gotten from the API. Response is retrieved as array of Json objects that the tracking status code and description.

URI: <https://api.clicknship.com.ng/clicknship/Operations/ShipmentStatus>

Request Type: GET

ContentType: application/Json

Sample Response:

```
[
  {
    "StatusCode": "150",
    "StatusDescription": "ACCESS DENIED TO CNEES OFFICE"
  },
  {
    "StatusCode": "12",
    "StatusDescription": "Arrived at Delivery Facility"
  },
  {
    "StatusCode": "15",
    "StatusDescription": "Arrived at Sort Facility"
  },
]
```

10. Printing Waybill

PDF copy of waybill can be generated using the Waybill Number of the shipment through the API. Response is retrieved as a PDF file representing the waybill of the shipment.

URI: <https://api.clicknship.com.ng/clicknship/Operations/PrintWaybill?waybillno= SA00000786>

Request Type: GET

ContentType: application/Json

Sample Response:

PDF file representing the waybill of the shipment.

11. Get Merchant Shipments Status

Merchants can pull shipment transaction status changes that have happened on their shipments for any specified date/time ranges. Response is retrieved as array of Json objects.

URI: <https://api.clicknship.com.ng/clicknship/Operations/MerchantShipmentStatus?DateTimeFrom=2019-03-04 09:35:05&DateTimeTo=2019-03-05 09:35:05>

Request Type: GET

ContentType: application/Json

Sample Response:

```
{  
  "OrderNo": "0001797",  
  "WaybillNumber": "SA00101765",  
  "StatusDescr": "PERFECT DELIVERY",  
  "StatusCode": "00",  
  "StatusDate": "2019-03-04T11:13:28.22"  
},
```

12. DropOff Locations

Drop-Off locations can be selected based on already selected City. These are Red Star Express Drop-Off location addresses in major cities.

URI: <https://api.clicknship.com.ng/ClicknShip/Operations/DropOffAddresses?citycode=MLD>

Request Type: GET

ContentType: application/Json

Sample Response: [{"ID": 10, "DropOffAddress": "IKEJA - 50/52 Toyin Sreet, Ikeja"}, {"ID": 18, "DropOffAddress": "IKEJA1 - 74,Opebi Road Ikeja"}, {"ID": 17, "DropOffAddress": "IKORODU - 250 Ikorodu Road,Ikorodu" },]

13.PickupTypes

Get the list of Pickup Types.

URI: <https://api.clicknship.com.ng/ClicknShip/Operations/PickupTypes>

Request Type: GET

ContentType: application/Json

Sample Response: [{"PickupTypeID": 1,"PickupType": "Pickup from my Address"}, {"PickupTypeID": 2, "PickupType": "Drop-Off in RSE Location"}]

14. PayWithPayStack

Make Payment for shipments via PayStack payment platform. This endpoint is an Authenticated Post endpoint. All that is required is to redirect to the value returned in the "CheckoutURL" of the Json object returned when the endpoint is called.

URI: <https://api.clicknship.com.ng/ClicknShip/NotifyMe/PayWithPayStack>

Request Type: Post

ContentType: application/Json

Sample Request Body: {"WaybillNumber":"SA00625667","CallBackURL":"www.test.com"}

Sample Response: {"ResponseCode": "00", "ResponseDescription": "Payment Request Successful",
"CheckoutURL": "<https://checkout.paystack.com/eec1yth5n23igsq>", "PaymentRef": "SA00625667_2020-12-23_151150"}

15. RequeryPayment

Get the payment status of any PaymentRef

URI: https://api.clicknship.com.ng/ClicknShip/NotifyMe/RequeryPayment?PaymentRef=SA00625667_2020-12-23_151150

Request Type: GET

ContentType: application/Json

Sample Response: "Payment NOT Successful"