2018

E-Way Bill System

EWB-API - Technical Document for Tax Payers / Transporters / GST Suvidha Providers



Changes in this Version (1.01)

1.       The ‘Generate e-way bill’ and ‘update Vehicle Number’ APIs respond with the additional information of Validity of the e-way bill.

2.       The additional information ‘Vehicle Type’ (Regular -R or Over Dimensional Cargo-O) needs to be passed in ‘Generate e-way bill’ API.

3.       The Get APIs (except Get Cons. EWB)  will have additional columns

a.       Valid Upto – Validity of the e-way bill

b.      Reject Status – Y in case other party has rejected the e-way bill

c.       Extended times – No of times the e–way bill has got the extension

d.      delPlace – Delivery Place of the e-way bill

e.      Status – whether e-way bill is Active (ACT) or Cancelled (CNL)

4.       Schema for the JSON data has been provided

5.       Sample .NET CODE for Encryption and Decryption functions have been provided

6. Sample Java Code for Encryption and Decryption functions have been provided

7.      Changed Master codes for Unit Quantity Code, State Code, and Document Type have been provided. They match with the GSTN Codes.

8.       New master codes have been added.

9.       Error Codes have been improved.

10.    URL and version has been changed.

11.   Compulsory fields are limited to Web page.

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|  |
| --- |
| List of Abbreviations |
|  |  |  |  |
|  | Abbreviation | Full Form |  |
|  |  |  |  |
|  | API | Application Program Interface |  |
|  |  |  |  |
|  | CGST | Central Goods and Service Tax |  |
|  |  |  |  |
|  | CKD | Completely Knocked Down |  |
|  |  |  |  |
|  | EBN | e-way bill Number |  |
|  |  |  |  |
|  | EWB | e-way bill |  |
|  |  |  |  |
|  | GSP | Goods and Services Tax Suvidha Provider |  |
|  |  |  |  |
|  | GST | Goods and Services Tax |  |
|  |  |  |  |
|  | GSTIN | Goods and Services Tax Identification No |  |
|  |  |  |  |
|  | GSTN | Goods and Services Tax Network |  |
|  |  |  |  |
|  | GSTR-1 | Goods and Services Tax Form -1 |  |
|  |  |  |  |
|  | HSN | Harmonized System of Nomenclature |  |
|  |  |  |  |
|  | ICT | Information and Communication Technology |  |
|  |  |  |  |
|  | IGST | Integrated Goods and Services Tax |  |
|  |  |  |  |
|  | IT | Information Technology |  |
|  |  |  |  |
|  | MIS | Management Information System |  |
|  |  |  |  |
|  | NIC | National Informatics Centre |  |
|  |  |  |  |
|  | OTP | One Time Password |  |
|  |  |  |  |
|  | PAN | Permanent Account Number |  |
|  |  |  |  |
|  | QR | Quick Response |  |
|  |  |  |  |
|  | RFID | Radio-Frequency identification Device |  |
|  |  |  |  |
|  | SGST | State Goods and Services Tax |  |
|  |  |  |  |
|  | SKD | Semi Knocked Down |  |
|  |  |  |  |
|  | URL | Uniform Resource Locator |  |
|  |  |  |  |

# Introduction

1.1 **Background**

Introduction of Goods and Services Tax (GST) across India with effect from 1st of July 2017 is a very significant step in the field of indirect tax reforms in India. For quick and easy movement of goods across India without any hindrance, all the check posts across the country are abolished. The GST system provides a provision of e-Way Bill, a document to be carried by the person in charge of conveyance, generated electronically from the common portal. To implement the e-Way Bill system, ICT based solution is required. Hence, as approved by the Goods and Services Tax (GST) Council, a web based has been designed and developed by National Informatics Centre and it is being rolled out for the use of taxpayers and transporters. Also, the other modes of e-way bill generation rolled out are SMS based, Android based and API based solutions.

1.2 **Purpose and Intended Audience**

This document aims to explain the operational and technical procedure on how to use API interface to generate the e-Way Bills by the Tax payers or Transporters.

This document is intended for technical experts or software solutions providers of tax payers or transporters, who are already using a computerized system for generating invoices and also generating a large number of invoices. The best method of EWB generation for such large tax payers, who generate the large number of e-Way Bills, is to build API interface with the E-way bill system. This is site-to-site integration of the systems for e-way Bill generation. In this method, the tax payer system will directly or through GSP request e-way bill to the E-way Bill system while generating invoice and get the e-Way Bill number. This can be printed on the Invoice document and movement of the goods can be started. This avoids duplicate data entry and eliminates data entry mistakes. To use this facility, the tax payers have to request the online for this service.

1.3 **Scope**

This document covers APIs published by E-way bill system. It includes API description with detailed payloads to be exchanged. The details of various APIs for of Authentication, E-way bill generation, Consolidated E-way bill generation, Vehicle No. updation, Cancellation of e-way bill, Rejection of e-way bill are explained in detail along with sample source code in C# .Net for better understanding for the tax payers and transporters.

This document also includes

* Interface Business Flow Process
* API format and brief details on key payload parameters.
* The attribute level description of each API request and response payload.
* JSON schema and sample JSON payload for respective APIs.
* API data structure Specification
* Sample C#.net code
* Various Master codes and error codes are listed in the Annexures
* JSON Schema

**1.4 Related documents to read**

* EWB-API Interface User Document – This is available on the web-site of e-way bill system

**1.5 URL or Web site address for API for Pre-production**

http://ewaybill2.nic.in/ewaybillapi/v1.01

# API Overview

The EWAYBILL APIs are used to communicate between Tax Payers or Transporters Systems with E-way bill System. This section describes standards and formats which will be used to define API exposed by E-WAY BILL systems. E-WAY BILL APIs will be implemented as RESTFul Web services.

Below table depicts the URI pattern to be used while defining API end points:

## API Format

E-WAY BILL APIs will be published as REST web service over HTTPS.

|  |  |
| --- | --- |
| **API URI** | http://ewaybill2.nic.in/ewaybillapi/v1.01 |
| **HTTP Method** |

|  |  |
| --- | --- |
| GET | To fetch data from E-WAY BILL |
| POST | To submit data to E-WAY BILL |

 |
|  |  |

1. API Format

# 3. Business Process Flow

## 3.1 Authentication Token request service

START

TP System to check availability of valid token in his system

## 3.2 Business Process Flow – Other request Services

TP system prepare request payload for new token with encrypted authentication parameters

**STOP**

TP System gets new TOKEN stores into local DB for further use

EWB system generates new TOKEN and sends to TP System

If available & Valid (generated within last 6 hours)?

Yes

No

Authentication successful?

EWB validates authentication parameters of TP

No

YES

Send Error Message

**Start**

TP System encrypted requests for service from EWB API Service

EWB system processes request and return the result to TP

Is token valid?

EWB checks for validity of token and requests

No

Yes

TP System reads and decrypts result and uses it

**STOP**

# List of E-Way Bill API Services/Methods

|  |  |  |
| --- | --- | --- |
| Sl No. | API Service | API Description |
| 1 | Authenticate | Authenticate with the credential to access the APIs |
| 2 | Get e-Way Bill | Get the e-way bill details based on EWB Number, generated by you |
| 3 | Get e-way bills assigned for transportation – for a day | Get the list of e-way bills assigned to you (requesting GSTIN) as transporter for transportation for particular generated date. This is used for Updating Part-B. |
| 4 | Get e-way bills assigned for transportation – by GSTIN | Get the list of e-way bills assigned to you (requesting GSTIN) for transportation by particular tax payer (GSTIN) and generated date. This is used for Updating Part-B. |
| 5 | Get e-way bills generated by other party  | Get the list of e-way bills generated by other party on your name (requesting GSTIN) based on generated date. This is used for rejecting purpose.  |
| 6 | Get Consolidated E-Way Bills | Get the Consolidated e-Way Bill details based on consolidated EWB Number, generated by you. |
| 7 | Generate E-Way Bill | Generate e-Way Bill |
| 8 | Update Part-B/ Vehicle Number for E-Way Bill | Update new vehicle number for the e-way Bill |
| 9 | Cancel E-Way Bill | Cancel the e-Way Bill |
| 10 | Reject E-Way Bill | Reject the e-Way Bill |
| 11 | Generate Consolidate E-Way Bill | Generate Consolidated e-Way Bill |

# Authentication API

## Overview

To access the API, application should first authenticate using the credentials shared and get the access token issued. Same access token to be used to access subsequent APIs. Access token will be configured to expire after 360 minutes. On expiry, same authentication API needs to be invoked to get new Access Token issued.

The API header information is used for authentication and authorization purpose.

Header + Request Payload

EWB

Tax Payer

Response

EWB

Header: client-id, client-secret, gstin

Request Payload: JSON(action, username, Encrypt(password, Ewaybill Public Key), Encrypt( app\_key, Ewaybill Public Key))

Tax Payer

Authentication Token

Response: JSON(status, authtoken, Encrypt (sek, app\_key)

Figure 1. Sequence Diagram Authentication API

## Specification

The format and details of a sample API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/authenticate/](http://164.100.80.111/ewaybillapi/v1/authenticate/) |
| Content-Type | application/json |
| Method | POST |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | Client\_id to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| Gstin | GSTIN of the requesting Tax Payer |

**Request Payload**

|  |  |  |
| --- | --- | --- |
| **Attributes** | **Description**  | **Value** |
| action |  | ACCESSTOKEN |
| username | Username of Tax payer as created on Ewaybill portal for API Integration(Tax payer will use the option Mainmenu->Registration->GSP to register under GSP OR Tax payer will use the option Mainmenu->Registration->API to register directly for API Interface) |
| password | Password of Tax payer as in Ewaybill portal for API Integration |
| app\_key | Any 32 character random unique id generated by user identifying unique user session. App\_key will be encrypted using Public key of E-WAY BILL using RSA algorithm |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Values |
| status | Status of Authentication request | 0 – for Failure; 1 – for Success |
| authtoken | Authorization token is a universally unique identifier (UUID). | Eg: 30431124-5cbd-4045- 9840-4ebb18d70265", |
| sek | Session Encryption key (SEK) is a 32 bit random secure key generated using AES 256 algorithm in the EWB system App\_key will be used as key to encrypt the Session Encryption key (SEK) using AES 256 (AES/ECB/PKCS7Padding) algorithm | Eg: "IaxLuJcsqILZuYQX828ITxXlrRUM1ebdEIaqEXnlaK+xK/U7ZuM5xAayg7RB7mWp |

**Sample JSON**

**Authentication Request**

{

"action":"ACCESSTOKEN",

"username":"nictexxst",

"password":"rjPf8Rr4Gjh9qvSDfoqOqyHPW+ ==",

"app\_key":"e1d65bgSeTrTatc7atLhKWyUbM/ekfbAWu2dFMfyNuYS+ =="

}

**Authentication Response**

{

"status":"1",

"authtoken":"a30WKqvWdLMkPH6M5V9X4AY",

"sek":"crdHoP73uRaLwSsg4o8RZCHgVrfydvF2K5IW3+kc/rI5SqOVJ52Thf1yCI4j"

}

# Generate E-way bill - API

Tax Payer

EWB

Header: client-id, client-secret, gstin, authtoken

Request: JSON(action, Encrypt(Base64(Request JSON),sek)

Response: JSON(status,

Encrypt(Base64(Response JSON), sek)

 Figure 2. Sequence Diagram: E-WAY BILL GENERATION API

The format and details of a Generate E-way bill API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/](http://164.100.80.111/ewaybillapi/v1/ewayapi/) |
| Content-Type | application/json |
| Method | POST |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | Client-id to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| gstin | GSTIN of Requester(Tax payer or Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Request Payload**

|  |  |  |
| --- | --- | --- |
| **Attributes** | **Description** | **Values** |
| action |  | GENEWAYBILL |
| Encrypt (Base64(Request JSON),sek) | Encrypted E-way bill JSON string  |  |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| status | Status of request | 0 – for Failure ;1 – for Success |
| Encrypt(Base64(Response JSON),sek) | Response of E-way bill JSON string, The response will have eway bill number and generated date if it is successfully generated. Otherwise the response will have error codes |  |

**SAMPLE JSON**

**Generate E-WAY BILL Request**

{

"action":"GENEWAYBILL",

"**data**": " iJiJGXqU1pcj7lUobPrYFVPaeiD0OGPaB3lVFNTXTMiHpW7VUcvgSWGXsGETQU4v3RuT23wXUVcZnrglGHjXV10rh8DsUZO+kufS5MMF+E1RcTRJN70TeDPd3Ya84X6+ijRcPFJUJyjvLD2muWYF+UixgkaNybUDK2eQ9IKPtabvsblCRCjVISuNjMfV0nrjtqYSWT8fcTk323OxYaqPhGWH/9T24vE8NnkNWUjIpfwPgFkiVKZ2xVcLESXGYSnffA6UBZPng/tBj/qk6EXsNjeC6/P7E+KOKin7aeNw83MOmlnGi/zPIm3pOoBG9w6Bj5ZfDWFssjHpBNWw6isecadXLlIlvtjkVzZ+cDOxWYw8AaYWLItgAy5ZUxyxBlRpv+lWMVarsfHimL+GYX3zo3hOWvQ8VfYPW/5qRoFsPL4aYJgaR5kHrw+yl672jIuoj1iZ5Qf3nDeFWrotBVDjrmON/IlckqoL3ATBf6nmpybyMJrSGdjQikNrO/2/+F5nJLTILwru6x2XD6r45v9v6aJXE13QWHE84E6wcloNGOObvUBV+/BadIn4zqXr48eIGmjGJ4p9OTnqyzaecHnKOOpfX3SIaHJKnEUx97OZ2ErAHAPI7OtWled92lzzH/2sue6C5W4q27Jt5SFjr2Tyxxz3WUiJ58BKLSfs4kVHmLJXROoXsSplgRVG04QpiL80ticEafWoCbAVhBC2Xkabkc8GmTFg5ak9VZxNh9vdAZbJ5zL0K+3fw8osIYG8CermgPkQUaQo2kpK/gEkINapvxbvTLqrVrV171aHUdFk5PW2G2nc9N0uPi0nplxz/habvDgkRQPFr+MJjAA437/Y7HnI5B34jMk3EhtqWHZNLNAf6HuMK0pl5boJtSl4qfpXpjg5uUAoAPA0/gXc3l4VOsR1NpqOI1zjSxraW5sJB53USaEqdunQNrDpr/GQITARl/D86gZoMf+Bi7Jdt108AI7EK0mYALn4gMvy1I3gDCQ+NXl5wStfCO1ih/OrL2wfihoH8bHFeW6xxCgvbenLxrAQfhiBkgAQkp2wXsHNxW4JbNh5rDlwc1VqP63WQ7/QVIkRGe/HS6uOn5JVlUNvKVNWIe6Qpm8eThMD/GEL1IJAV6oQOr7+OOEn2oIR7olJ5yu652iH6tq0Xcx2C0ZmhHRms54w5bVWZu+/bOhMptSKIs/N67JGJ8hj85E2+yOgwdTn+Nvi+W7d2W3jVFF7XP7+CbfxZdi5RVyir4fddH8YbsLzj9FjP1uRcBqK2egzQ90UWKXCtqCi6QMORfFu5LDgwMCNJ75TH+1nVRaeXYhVDAQEeYWkG2yKVfME0BUoHQ54w5a0M1XoxMi9wU9LbuCAt5UG2wi39x2gKc78IddcABdtwx2K23hdoUZp/25Y "

}

**“data” JSON corresponds to the data element of Generate E-WAY BILL Request above**

{

"supplyType":"O",

"subSupplyType":"1",

"docType":"INV",

"docNo":"123-8",

"docDate":"15/12/2017",

"fromGstin":"29AAACG0569P1Z3",

"fromTrdName":"welton",

"fromAddr1":"2ND CROSS NO 59 19 A",

"fromAddr2":"GROUND FLOOR OSBORNE ROAD",

"fromPlace":"FRAZER TOWN",

"fromPincode":560042,

"fromStateCode":29,

"toGstin":"02EHFPS5910D2Z0",

"toTrdName":"sthuthya",

"toAddr1":"Shree Nilaya",

"toAddr2":"Dasarahosahalli",

"toPlace":"Beml Nagar",

"toPincode":689788,

"toStateCode":28,

"totalValue":5609889,

"cgstValue":0,

"sgstValue":0,

"igstValue":168296.67,

"cessValue":224395.56,

"transporterId":"",

"transporterName":"",

"transDocNo":"",

"transMode":”1”,

"transDistance":"656",

"transDocDate":"",

"vehicleNo":"PVC1234",

“vehicleType”:”R”,

"itemList":

[{

"productName":"Wheat",

"productDesc":"Wheat",

"hsnCode":1001,

"quantity":4,

"qtyUnit":"BOX",

"cgstRate":0,

"sgstRate":0,

"igstRate":3,

"cessRate":4,

"cessAdvol":0,

"taxableAmount":5609889

}

]

}

**Generate E-WAY BILL Response**

{

"status":"1",

"**data**":"ew0KCSJld2F5QmlsbE5vIjogMTIzNDU2Nzg5LA0KCSJld2F5QmlsbERhdGUiOiAiMTYgLyAwOSAvIDIwMTcgMTA6IDMwOiAwMCBBTSINCn0="

}

**“data” JSON corresponds to the data element of Generate E-WAY BILL Response(Success) above**

{

"ewayBillNo":123456789,

"ewayBillDate":"16/09/2017 10:30:00 AM",

“validUpto”:”17/09/2017 12.00:00 PM”

}

**JSON(in case of error)**

{

"status": "0",

"error":{"errorCodes": 240}

}

# UPDATE PART-B/VEHICLE NUMBER - API

Header: client-id, client-secret, gstin, authtoken

Request: JSON(action,Encrypt( Base64(Request JSON),sek)

TP through GSP

EWB

Response: JSON(status, Encrypt(Base64(Response JSON),sek )

 Figure 3. Sequence Diagram: UPDATE VEHICLE API Invocation

The format and details of a Vehicle No. Updation API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/](http://164.100.80.111/ewaybillapi/v1/ewayapi/) |
| Content-Type | application/json |
| Method | POST |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by EWAYBILL SYSTEM |
| client-secret | Secret to be provided by EWAYBILL SYSTEM |
| gstin | GSTIN of Requester(Tax payer or Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Request Payload**

|  |  |  |
| --- | --- | --- |
| **Attributes** | **Description** | **Value** |
| action |  | VEHEWB |
| Encrypt(Base64(Request JSON),sek) | Vehicle Update JSON string  |  |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Values |
| status | Status of request | 1-Success;0-Error |
| Encrypt(Base64(Response JSON),sek) | Response of Update Vehicle JSON string,The response will have vehicle number and updated date if it is successfully updated. Otherwise the response will have error codes |  |

**Sample JSON**

**UPDATE VEHICLE Request**

{

"action":" VEHEWB ",

"**data**": “ew0KCSJFd2JObyI6IDExMTAwMDYwOTI4MiwNCgkiVmVoaWNsZU5vIjogIlBRUjEyMzQiLA0KCSJGcm9tUGxhY2UiOiAiQkFOR0FMT1JFIiwNCgkiRnJvbVN0YXRlIjogMjksDQoJIlJlYXNvbkNvZGUiOiAiMSIsDQoJIlJlYXNvblJlbSI6ICJ2ZWhpY2xlIGJyb2tlIGRvd24iLA0KCSJUcmFuc0RvY05vICI6ICIxMjM0ICIsDQoJIlRyYW5zRG9jRGF0ZSAiOiAiMTIvMTAvMjAxNyAiLA0KCSJUcmFuc01vZGUiOiAiMSINCn0=”

}

**“data” JSON corresponds to the data element of UPDATE VEHICLE Request above**

{

 "EwbNo": 111000609282,

 "VehicleNo": "PQR1234",

 "FromPlace": "BANGALORE",

 "FromState": 29,

 "ReasonCode": "1",

 "ReasonRem": "vehicle broke down",

 "TransDocNo ": "1234 ",

 "TransDocDate ": "12/10/2017 ",

 "TransMode": "1"

}

**UPDATE VEHICLE Response**

{

"status":"1",

"**data**":"ew0KInZlaFVwZERhdGUiOiIxNS8xMi8yMDE3IDEwOjU2OjAwIEFNIg0KfQ0K"

}

**“data” JSON corresponds to the data element of UPDATE VEHICLE Response(Success) above**

{

"vehUpdDate":"15/12/2017 10:56:00 AM",

“validUpto”:”17/09/2017 12.00:00 PM”

}

**JSON(in case of error)**

{

"status": "0",

"error":{"errorCodes": 240}

}

# GENERATE CONSOLIDATED EWAYBILL

TP

EWB

Header: client-id, client-secret, gstin, authtoken

Request: JSON(action, Encrypt(Base64(Request JSON)),sek)

Response: JSON(status, Encrypt( Base64(Response JSON) ,sek)

Figure 3. Sequence Diagram: CONSOLIDATED E-WAY BILL GENERATION API Invocation

The format and details of Consolidated E-way bill API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/](http://164.100.80.111/ewaybillapi/v1/ewayapi/) |
| Content-Type | application/json |
| Method | POST |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| Gstin | GSTIN of Requester(Tax payer or Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Request Payload**

|  |  |  |
| --- | --- | --- |
| **Attributes** | **Description** |  |
| Action |  | GENCEWB |
| Encrypt(Base64(Request JSON),sek) | Consolidated E-way bill JSON string  |  |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| Status | Status of request | 1-Success ; 0-Error |
| Encrypt(Base64(Response JSON),sek) | Response of Consolidated E-way bill JSON string.The response will have consolidated eway bill number and generated date if it is successfully generated. Otherwise the response will have error codes |  |

**Sample JSON**

**Generate Consolidated E-WAY BILL Request**

{

"action":"GENCEWB",

"**data**":” ew0KICANCiAgImZyb21QbGFjZSI6ICJCQU5HQUxPUkUgU09VVEgiLA0KICAiZnJvbVN0YXRlIjogIjI5IiwNCiAgInZlaGljbGVObyI6ICJLQTEyQUIxMjM0IiwNCiAgInRyYW5zTW9kZSI6ICIxIiwNCiAgInVzZXJHc3RpbiI6ICIyOUFBQUNHMDU2OVAxWjMiLA0KICAidXNlcklkIjogIkFNQlVKQU5FMzIiLA0KICAidHJpcFNoZWV0RXdiQmlsbHMiOiBbDQogICAgew0KICAgICAgImV3Yk5vIjogMTExMDAwNjA5MjgyDQogICAgfSwNCiAgICB7DQogICAgICAiZXdiTm8iOiAxODEwMDA2MDkyNzANCiAgICB9DQogIF0NCn0= "

}

**“data” JSON (corresponds to the data element of Generate Consolidated E-WAY BILL Request)**

{

 "fromPlace": "BANGALORE SOUTH",

 "fromState": 29,

 "vehicleNo": "KA12AB1234",

 "transMode": "1",

 "TransDocNo":"1234",

 "TransDocDate":"12/10/2017",

 "tripSheetEwbBills": [

 { "ewbNo": 111000609282 },

 { "ewbNo": 181000609270 }

]}

**Generate Consolidated E-WAY BILL Response**

{

"status":"1",

"**data**":"ew0KImNFd2JObyI6IjE4MTAwMDAzODciLA0KImNFV0JEYXRlIjoiMTUvMTIvMjAxNyAxMDoyNzowMCBBTSINCn0NCg0K"}

**“data” JSON corresponds to the data element of Generate Consolidated EWB Response(Success) above**

{

"cEwbNo":1810000387,

"cEWBDate":"15/12/2017 10:27:00 AM"

}

**JSON(in case of error)**

{

"status": "0",

"error":{"errorCodes": 240}

}

# CANCEL E-WAY BILL

TP

EWB

Header: client-id, client-secret, gstin, authtoken

Request: JSON(action, Encrypt(Base64(Request JSON),sek))

Response: JSON(status, Encrypt(Base64(Response JSON),sek) )

Figure 4. Sequence Diagram: Cancellation of E-WAY BILL API Invocation

The format and details of Cancellation of E-way bill API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/](http://164.100.80.111/ewaybillapi/v1/ewayapi/) |
| Content-Type | application/json |
| Method | POST |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| gstin | GSTIN of Requester(Tax payer or Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Request Payload**

|  |  |  |
| --- | --- | --- |
| **Attributes** | **Description** |  |
| action | CANEWB | CANEWB |
| Encrypt(Base64(Request JSON),sek) | Cancelled E-way bill JSON string.  |  |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| status | Status of request | 1 – Success; 0 - Error |
| Encrypt(Base64( Response JSON),sek) | Response of Cancelled E-way bill JSON string.The response will have cancelled eway bill number and cancelled date if it is successfully cancelled. Otherwise the response will have error codes |  |

**Sample JSON**

**CANCEL E-WAY BILL Request**

{

"action":"CANEWB ",

"**data**":” eyAgDQoiZXdiTm8iOiAxMTEwMDA2MDkyODIsDQogImNhbmNlbFJzbkNvZGUiOiAyLA0KImNhbmNlbFJtcmsiOiAiQ2FuY2VsbGVkIHRoZSBvcmRlciINCn0NCg== "

}

**“data” JSON (corresponds to the data element of Cancel E-WAY BILL Request)**

{

"ewbNo": 111000609282,

 "cancelRsnCode": 2,

"cancelRmrk": "Cancelled the order"

}

**Cancel E-WAY BILL Response**

{

"status":"1",

"**data**":"

ew0KCSJld2F5QmlsbE5vIjogIjExMTAwMDYwOTI4MiIsDQoJImNhbmNlbERhdGUiOiAiMTUvMTIvMjAxNyAxMTozNTowMCBBTSINCn0= "

}

**“data” JSON (corresponds to the data element of Cancelled EWB Response(Success))**

{

 "ewayBillNo": 111000609282,

 "cancelDate": "15/12/2017 11:35:00 AM"

}

**JSON(in case of error)**

{

"status": "0",

"error":{"errorCodes": 240}

}

# REJECT EWAYBILL

TP

EWB

Header: client-id, client-secret, gstin, authtoken

Request: JSON(action, Encrypt(Base64(Request JSON)),sek)

Response: JSON(status, Encrypt(Base64(Response JSON),sek )

Figure 5. Sequence Diagram: Reject E-WAY BILL API Invocation

The format and details of Reject E-way bill API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/](http://164.100.80.111/ewaybillapi/v1/ewayapi/) |
| Content-Type | application/json |
| Method | POST |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| Gstin | GSTIN of Requester(Tax payer or Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Request Payload**

|  |  |  |
| --- | --- | --- |
| **Attributes** | **Description** |  |
| Action | REJEWB | REJEWB |
| Encrypt(Base64(Request JSON),sek) | Reject E-way bill JSON string.  |  |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| Status | Status of request | 1 – Success ; 0 - Error |
| Encrypt(Base64(Response JSON),sek) | Response of Reject E-way bill Json string.The response will have rejected eway bill number and rejected date if it is successfully rejected. Otherwise the response will have error codes |  |

**Sample JSON**

**Reject E-WAY BILL Request**

{

"action":"REJEWB ",

"**data**":"ew0KCSJld2JObyI6ICIxODEwMDA2MDkyNzAiDQp9 "

}

**“data” JSON corresponds to the data element of Reject E-WAY BILL Request above**

{

 "ewbNo": 181000609270

}

**Reject E-WAY BILL Response**

{

"status":"1",

"**data**":" ew0KCSJld2F5QmlsbE5vIjogMTgxMDAwNjA5MjcwLA0KCSJld2JSZWplY3RlZERhdGUiOiAiMTUvMTIvMjAxNyAxMDoyNDowMCBBTSINCn0="

}

**“data” JSON (corresponds to the data element of Reject EWB Response(Success))**

{

 "ewayBillNo": 181000609270,

 "ewbRejectedDate": "15/12/2017 10:24:00 AM"

}

**JSON(in case of error)**

{

"status": "0",

"error":{"errorCodes": 240}

}

# GET EWAYBILL DETAILS

This method provideS the eway bill details for a given eway bill number.

The format and details of GetEwayBilll API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/GetEwayBill](http://164.100.80.111/ewaybillapi/v1/ewayapi/GetEwayBill) |
| Content-Type | application/json |
| Method | GET |
| URL Parameters | ewbNo |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| Gstin | GSTIN of Requester(Tax payer or Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| Status | Status of request | 1 – Success ; 0 - Error |
| Encrypt(Base64(Response JSON),rek) | Response of E-way bill Json string. |  |
| Encrypt(rek,sek) | Random encryption key which is encrypted using sek |  |
| Hmac ( Base64(JSON data )) | HMAC-SHA256 of Base64 data using AES key (rek) as HMAC Key |  |

## **Sample Json for GetEwayBill**

{ "actualDist": 356,

 "cessValue": 127.71,

 "cgstValue": 85.14,

 "docDate": "16/12/2017",

 "docNo": "esf",

 "docType": "INV",

 "fromAddr1": "GHSRaliway StationGollahalliNelamangala",

 "fromAddr2": "Bangalore (Rural)",

 "fromGstin": "29BNMPC3977J1Z2",

 "fromPincode": 562123,

 "fromPlace": "Bangalore (Rural)",

 "fromStateCode": 29,

 "fromTrdName": "CHITRA N",

 "genMode": "MOB",

 "igstValue": 0.00,

 "itemList": [

 {

 "productDesc": "",

 "cessRate": 3.000,

 "cgstRate": 2.000,

 "hsnCode": 1001,

 "igstRate": 0.000,

 "productId": 0,

 "productName": "",

 "qtyUnit": "KGS",

 "quantity": 0.00,

 "sgstRate": 2.000,

 "taxableAmount": 4257.00,

 “itemNo": 1,

 "cessAdvol": 0.00

 }

 ],

"sgstValue": 85.14,

 "status": "ACT",

 "subSupplyType": "1 ",

 "supplyType": "O",

 "toAddr1": "",

 "toAddr2": "",

 "toGstin": "29AMRPV8729L1Z1",

 "toPincode": 560043,

 "toPlace": "",

 "toStateCode": 29,

 "toTrdName": "",

 "totalValue": 4257.00,

 "transDocDate": "16/12/2017",

 "transDocNo": "",

 "transMode": "1 ",

 “VehicleType”:”R”,

 "transporterId": "",

 "transporterName": "",

 "userGstin": "29BNMPC3977J1Z2",

 "ewbNo": 191009891462,

 “ewayBillDate": "18/01/2018 10:20:00 AM",

 “validUpto”:”17/09/2017 12.00:00 PM”,

 “extendedTimes”:0,

 “rejectStatus”: “N”,

 "VehiclListDetails": [

 {

 "updMode": "MOB",

 "vehicleNo": "KA12WE7006",

 "fromPlace": "Bangalore (Rural)",

 "fromState": 29,

 "tripshtNo": 0,

 "userGSTINTransin": "29BNMPC3977J1Z2",

 "transMode": "1 ",

 “transDocNo”:”1234”,

 “transDocDate”: “12/12/2017”

 }

 ]

}

# GET EWAY BILL ASSIGNED TO YOU (REQUESTING GSTIN) FOR A TRANSPORTATION – PARTICULAR DATE

This method provides thel ist of eway bills assigned for a transporter based on generated date.

The format and details of GetEwayBillsForTransporter API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/GetEwayBillsForTransporter](http://164.100.80.111/ewaybillapi/v1/ewayapi/GetEwayBillsForTransporter) |
| Content-Type | application/json |
| Method | GET |
| URL Parameters | date |
| URL Parameter Desc | date – E-way bill generated Date |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| gstin | GSTIN of Requester(Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| status | Status of request | 1 – Success ; 0 - Error |
| Encrypt(Base64(Response JSON),rek) | Response of E-way bill assigned to a transporter Json string. |  |
| Encrypt(rek,sek) | Random encryption key which is encrypted using sek |  |
| Hmac ( Base64(JSON data )) | HMAC-SHA256 of Base64 data using AES key (rek) as HMAC Key |  |

## **12.1.1 Sample JSON for GetEwayBillsForTransporter**

[{ "ewbNo": 151000256262,

 "ewbDate": "10/12/2017 10:45:00 AM ",

 "genGstin": "29AMRPV8729L1Z1",

 “docNo": "",

 "docDate": "22/09/2017",

 “delPlace”:”Bangalore”,

 "delPinCode": 560056,

 "delStateCode": 29,

 “validUpto”:”17/12/2017 12.00:00 PM”,

 “extendedTimes”:0,

 “Status”: “ACT”,

 “rejectStatus”:”Y”

 },

{ "ewbNo": 121000359898,

 "ewbDate": "10/12/2017 10:45:00 AM ",

 "genGstin": "29AAECP2371C1ZL",

 "docNo": "TA120",

 "docDate": "20/09/2017",

 “delPlace”:”Bangalore”,

 "delPinCode": 560013,

 "delStateCode": 29

 “validUpto”:”17/12/2017 12.00:00 PM”,

 “extendedTimes”:0,

 “Status”: “ACT”,

 “rejectStatus”:”Y”

}

]

# GET EWAY BILL ASSIGNED TO YOU (REQUESTING GSTIN) FOR TRANSPORTATION – PARTICULAR GSTIN and DATE

This method provides the list of E-way bills assigned for a requesting transporter by a given GSTIN based on generated date.

The format and details of GetEwayBillsForTransporterByGstin API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/GetEwayBillsForTransporterByGstin](http://164.100.80.111/ewaybillapi/v1/ewayapi/GetEwayBillsForTransporterByGstin) |
| Content-Type | application/json |
| Method | GET |
| URL Parameters | Gen\_gstin, date |
| URL Parameter Description | Gen\_gstin – GSTIN of E-way bill generatordate – E-way bill generated DateParameters needs to be passed in the order in which it is listed |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| gstin | GSTIN of Requester(Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| status | Status of request | 1 – Success; 0 - Error |
| Encrypt(Base64(Response JSON),rek) | Response of E-way bill assigned to a Transporter for a specific GSTIN Json string. |  |
| Encrypt(rek,sek) | Random encryption key which is encrypted using sek |  |
| Hmac ( Base64(JSON data )) | HMAC-SHA256 of Base64 data using AES key (rek) as HMAC Key |  |

**13.1.1 Sample JSON**

[

{

 "ewbNo": 151000256262,

 "ewbDate": "10/12/2017 10:45:00 AM ",

 "genGstin": "29AMRPV8729L1Z1",

 “docNo": "",

 "docDate": "22/09/2017",

 "delPinCode": 560056,

 "delStateCode": 29,

 “validUpto”:”17/12/2017 12.00:00 PM”,

 “extendedTimes”:0,

 “delPlace”: “Bangalore”,

 “Status”: “ACT”,

 “rejectStatus”:”Y”

 },

{ "ewbNo": 121000359898,

 "ewbDate": "10/12/2017 10:45:00 AM ",

 "genGstin": "29AAECP2371C1ZL",

 "docNo": "TA120",

 "docDate": "20/09/2017",

 "delPinCode": 560013,

 "delStateCode": 29 ,

 “validUpto”:”17/12/2017 12.00:00 PM”,

 “extendedTimes”:0,

 “delPlace”: “Bangalore”,

 “Status”: “ACT”,

 “rejectStatus”:”Y”

} ]

# GET E-WAY BILLS GENERATED ON YOU (REQUESTING GSTIN) BY OTHER PARTIES

This method provides the list of E-way bills generated by other parties on your GSTIN. This can be used for rejecting the e-way bill, if required.

The format and details of GetEwayBillsofOtherParty API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/GetEwayBillsofOtherParty](http://164.100.80.111/ewaybillapi/v1/ewayapi/GetEwayBillsofOtherParty) |
| Content-Type | application/json |
| Method | GET |
| URL Parameters |  date |
| URL Parameter Desc | date – E-way bill generated DateParameters needs to be passed in the order in which it is listed |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| Gstin | GSTIN of Requester |
| authtoken | Authentication token returned by the E-way bill system |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| Status | Status of request | 1 – Success ; 0 - Error |
| Encrypt(Base64(Response JSON),rek) | Response of E-way bill generated by other party Json string. |  |
| Encrypt(rek,sek) | Random encryption key which is encrypted using sek |  |
| Hmac ( Base64(JSON data )) | HMAC-SHA256 of Base64 data using AES key (rek) as HMAC Key |  |

**Sample Json**

[

{

 "ewbNo": 151000256262,

 "ewbDate": "10/12/2017 10:45:00 AM ",

 "genGstin": "29AMRPV8729L1Z1",

 “docNo": "",

 "docDate": "22/09/2017",

 "delPinCode": 560056,

 "delStateCode": 29,

 “validUpto”:”17/12/2017 12.00:00 PM”,

 “extendedTimes”:0,

 “delPlace”: “Bangalore”,

 “Status”: “ACT”,

 “rejectStatus”:”Y”

 },

{ "ewbNo": 121000359898,

 "ewbDate": "10/12/2017 10:45:00 AM ",

 "genGstin": "29AAECP2371C1ZL",

 "docNo": "TA120",

 "docDate": "20/09/2017",

 "delPinCode": 560013,

 "delStateCode": 29 ,

 “validUpto”:”17/12/2017 12.00:00 PM”,

 “extendedTimes”:0,

 “delPlace”: “Bangalore”,

 “Status”: “ACT”,

 “rejectStatus”:”Y”

} ]

# GET CONSOLIDATED E-WAY BILL

This method provides the Consolidated E-way bill details for a given E-way bill number.

The format and details of GetTripSheet API request is depicted in following table.

|  |  |
| --- | --- |
| URL | [http://ewaybill2.nic.in/ewaybillapi/v1.01/ewayapi/GetTripSheet](http://164.100.80.111/ewaybillapi/v1/ewayapi/GetTripSheet) |
| Content-Type | application/json |
| Method | GET |
| URL Parameters | tripSheetNo |
| URL Parameters description | tripSheetNo – Consolidated E-way bill number |

**Request Header**

|  |  |
| --- | --- |
| Attributes | Description |
| client-id | clientid to be provided by E-WAY BILL SYSTEM |
| client-secret | Secret to be provided by E-WAY BILL SYSTEM |
| gstin | GSTIN of Requester(Tax payer or Transporter) |
| authtoken | Authentication token returned by the E-way bill system |

**Response Payload**

|  |  |  |
| --- | --- | --- |
| Attributes | Description | Value |
| status | Status of request | 1 – Success ; 0 - Error |
| Encrypt(Base64(Response JSON),rek) | Response of Consolidated E-way bill Json string. |  |
| Encrypt(rek,sek) | Random encryption key which is encrypted using sek |  |
| Hmac ( Base64(JSON data )) | HMAC-SHA256 of Base64 data using AES key (rek) as HMAC Key |  |

## **Sample Response Json for GetTripSheet (Consolidated E-way Bill)**

{

 "tripSheetNo": 1610005711,

 "fromPlace": "TYH",

 "fromState": "29",

 "vehicleNo": "KA12ER4344",

 "transMode": "1 ",

 "userGstin": "29BQSPA3829E1ZG",

 "enteredDate": “12/12/2018 11:50:00 AM”,

 “transDocNo”:”897”,

 “transDocDate”:”17/12/2017”,

 "tripSheetEwbBills": [

 {

 "ewbNo": 131009585893,

 "ewbDate": “10/12/2017 10:45:00 AM”,

 "userGstin": "29BQSPA3829E1ZG",

 “docNo”: “1012 “;

 “docDate”: “10/12/2017 “;

 "assessValue": 38,

 "cgstValue": 0,

 "sgstValue": 0,

 "igstValue": 0,

 "cessValue": 0,

 “validUpto”:”20/12/2017 12.00:00 PM”

 },

 {

 "ewbNo": 141009586518,

 "ewbDate": “10/12/2017 10:45:00 AM ",

 "userGstin": "29BQSPA3829E1ZG",

 "docNo": "doc45",

 "docDate": "13/12/2017",

 "assessValue": 456,

 "cgstValue": 0,

 "sgstValue": 0,

 "igstValue": 0,

 "cessValue": 0,

 “validUpto”:”21/09/2017 12.00:00 PM”

 }

 ] }

# 16. Sample Code in C#.net to integrate this API with Tax Payer System

**16.1 Encryption and Decryption**

Asymmetric Key Encryption (RSA)

The following C#.Net code snippet can be used for encrypting the password and the appkey using the public key given by the E-way bill System. The encryption method used here is RSA.

public static string EncryptAsymmetric(string data, string key)

 {

 byte[] keyBytes = Convert.FromBase64String(key);

AsymmetricKeyParameter asymmetricKeyParameter = PublicKeyFactory.CreateKey(keyBytes);

 RsaKeyParameters rsaKeyParameters = (RsaKeyParameters)asymmetricKeyParameter;

 RSAParameters rsaParameters = new RSAParameters();

 rsaParameters.Modulus = rsaKeyParameters.Modulus.ToByteArrayUnsigned();

 rsaParameters.Exponent = rsaKeyParameters.Exponent.ToByteArrayUnsigned();

 RSACryptoServiceProvider rsa = new RSACryptoServiceProvider();

 rsa.ImportParameters(rsaParameters);

 byte[] plaintext = Encoding.UTF8.GetBytes(data);

 byte[] ciphertext = rsa.Encrypt(plaintext, false);

 string cipherresult = Convert.ToBase64String(ciphertext);

 return cipherresult;

 }

Symmetric Key Encryption (AES)

The following C#.Net code snippet can be used for encrypting the data using the symmetric key.

public static string EncryptBySymmetricKey(string text, string sek)

 {

 //Encrypting SEK

 try

 {

 byte[] dataToEncrypt = Convert.FromBase64String(text);

 var keyBytes = Convert.FromBase64String(sek);

 AesManaged tdes = new AesManaged();

 tdes.KeySize = 256;

 tdes.BlockSize = 128;

 tdes.Key = keyBytes;

 tdes.Mode = CipherMode.ECB;

 tdes.Padding = PaddingMode.PKCS7;

 ICryptoTransform encrypt\_\_1 = tdes.CreateEncryptor();

 byte[] deCipher = encrypt\_\_1.TransformFinalBlock(dataToEncrypt, 0, dataToEncrypt.Length);

 tdes.Clear();

 string EK\_result = Convert.ToBase64String(deCipher);

 return EK\_result;

 }

 catch (Exception ex)

 {

 throw ex;

 }

 }

Symmetric Decryption (AES)

The following C#.Net code snippet can be used for decrypting the encrypted string using the key.

public static byte[] DecryptBySymmetricKey(string encryptedText, byte[] key)

 {

 //Decrypting SEK

 try

 {

 byte[] dataToDecrypt = Convert.FromBase64String(encryptedText);

 var keyBytes = key;

 AesManaged tdes = new AesManaged();

 tdes.KeySize = 256;

 tdes.BlockSize = 128;

 tdes.Key = keyBytes;

 tdes.Mode = CipherMode.ECB;

 tdes.Padding = PaddingMode.PKCS7;

 ICryptoTransform decrypt\_\_1 = tdes.CreateDecryptor();

 byte[] deCipher = decrypt\_\_1.TransformFinalBlock(dataToDecrypt, 0, dataToDecrypt.Length);

 tdes.Clear();

 string EK\_result = Convert.ToBase64String(deCipher);

 return EK\_result;

 }

 catch (Exception ex)

 {

 throw ex;

 }

 }

**16.2 Sample code to generate Access token**

Public void GetAuthToken()

Step 1: Get the public key from the file stored in the folder and remove the string “----- BEGIN PUBLIC KEY-----“ at the start and "-----END PUBLIC KEY-----" at the end

{

using (var reader = File.OpenText(@"D:\ConsumeEwayBillAPI\ewaybill\_publickey.pem"))

public\_key = reader.ReadToEnd().Replace("-----BEGIN PUBLIC KEY-----","").Replace("-----END PUBLIC KEY-----","").Replace("\n","");

Step 2: Create Http request object with headers and payload to consume authentication API

HttpWebRequest request =

(HttpWebRequest)WebRequest.Create ("http://ewaybill2.nic.in/ewaybillapi/v1.01/Authenticate");

request.Method = "POST";

request.KeepAlive = true;

request.AllowAutoRedirect = false;

request.Accept = "\*/\*";

Step 3: Set the client-id , client secret as given by E-way bill system, and set your GSTIN

request.ContentType = "application/json";

request.Headers.Add("client-id", "test\_clientid");

request.Headers.Add("client-secret", "test\_client\_secret");

request.Headers.Add("gstin", "testgstin");

Step 4: Encrypt the password using the Public key of the E-way bill system. This will be the encrypted password.

string encPassword = Encrypt("testpwd", public\_key);

Step 5: Create a secure key by calling random function and convert the same to Base64. Encrypt the secure key by the Public key of the E-way bill system. This will be the encrypted app key.

byte[] \_aeskey = encdec.generateSecureKey(); //common.RandomString(32); //

string straesKey = Convert.ToBase64String(\_aeskey);

string encAppKey = encdec.Encrypt(\_aeskey, public\_key);

Step 6: Set the action as ‘ACCESSTOKEN’. Set the username as given by the E-way bill system to you. Set the Encrypted password (previously generated). Set the Encrypted App key (previously generated )

RequestPayload aRequestPayload = new RequestPayload();

aRequestPayload.action = "ACCESSTOKEN";

aRequestPayload.username = "testacc";

aRequestPayload.password = encPassword;

aRequestPayload.app\_key = encAppKey;

Step 7: Post the API request and receive the response for auth token

JavaScriptSerializer serial1 = new JavaScriptSerializer();

using (var streamWriter = new StreamWriter(request.GetRequestStream()))

 {

 string json = serial1.Serialize(aRequestPayload);

 streamWriter.Write(json);

 streamWriter.Flush();

 streamWriter.Close();

 }

 WebResponse response = request.GetResponse();

 string result = new StreamReader(response.GetResponseStream()).ReadToEnd();

 AuthResponse objresp = new AuthResponse();

 objresp = serial1.Deserialize <AuthResponse> (result);

 string decryptedappkey = encdec.DecryptSymmetric(objresp.sek, straesKey);

}

**16.3 Sample code to generate E-way Bill**

Public GeneratedEwayBill()

Step 1: Prepare the request object by setting the URL, client-id, client secret, GSTIN, and Auth token received from the previous API.

 {

 HttpWebRequest request =

 (HttpWebRequest)WebRequest.Create("http://ewaybill2.nic.in/ewaybillapi/v1.01/EwayApi");

 request.Method = "POST";

 request.KeepAlive = true;

 request.AllowAutoRedirect = false;

 request.Accept = "\*/\*";

 request.ContentType = "application/json";

 request.Headers.Add("client-id", "TESTCLIENTID");

 request.Headers.Add("client-secret", "CLIENTSECRET");

 request.Headers.Add("gstin", "29AAACGIIIII1Z3");

 request.Headers.Add("authtoken", "0aAjBKdo7rcNYJB30g5DS2u8z");

Step 2: Prepare the JSON string with all parameters. Post the request and receive the response. Refer the annexure for the parameter details.

 ewayapi.Entities.EwayBillApiRequest ewbReq = new

 ewayapi.Entities.EwayBillApiRequest();

 ewbReq.action = "GENEWAYBILL";

 //Serialised JSON Data

string jsonData = \"supplyType\":\"O\",\"subSupplyType\":\"1\",\"docType\":\"INV\",\"docNo\":\"123-8\",\"docDate\":\"15/12/2017,\"fromGstin\":\"29AAACG0569P1Z3\",\"fromTrdName\":\"welton\",\"fromAddr1\":\"2ND CROSS NO 59 19 A\",\"fromAddr2\":\"GROUND FLOOR OSBORNE ROAD\",\"fromPlace\":\"FRAZER TOWN\",\"fromPincode\":560042,\"fromStateCode\":29,\"toGstin\":\"02EHFPS5910D2Z0\",\"toTrdName\":\"sthuthya\",\"toAddr1\":\"Shree Nilaya\",\"toAddr2\":\"Dasarahosahalli\",\"toPlace\":\"Beml Nagar\",\"toPincode\":689788,\"toStateCode\":28,\"totalValue\":5609889,\"cgstValue\":0,\"sgstValue\":0,\"igstValue\":168296.67,\"cessValue\":224395.56,\"transporterId\":\"\",\"transporterName\":\"\",\"transDocNo\":\"\",\"transMode\":\"1\",\"transDistance\":\"656\",\"transDocDate\":\"\",\"noOfTransDays\":0,\"vehicleNo\":\"PVC1234\",\"itemList\":[{\"ewbNo\":0,\"itemNo\":0,\"productName\":\"Wheat\",\"productDesc\":\"Wheat\",\"hsnCode\":1001,\"quantity\":4,\"qtyUnit\":\"BOX\",\"cgstRate\":0,\"sgstRate\":0,\"igstRate\":3,\"cessRate\":4,\"cessAdvol\":0,\"taxableAmount\":5609889}]}";

ewbReq.data = encdec.EncryptBySymmetricKey(Convert.ToBase64String(System.Text.Encoding.UTF8.GetBytes(jsonData)), sek);

 using (var streamWriter = new StreamWriter(request.GetRequestStream()))

 {

 string json = serial1.Serialize(ewbReq);

 streamWriter.Write(json);

 streamWriter.Flush();

 streamWriter.Close();

 }

 WebResponse response = request.GetResponse();

 string result = new StreamReader(response.GetResponseStream()).ReadToEnd();

 serial1 = new JavaScriptSerializer();

Step 3: Receive the response. Decrypt using sek and Decode the Base 64 string to plain text

 ewayapi.Entities.EwayBillApiResponse ewbres =

 serial1.Deserialize<ewayapi.Entities.EwayBillApiResponse>(result);

string data = encdec.DecryptBySymmetricKey(ewbres.data, Convert.FromBase64String(sek));

yte[] reqDatabytes = Convert.FromBase64String(data);

 string requestData = System.Text.Encoding.UTF8.GetString(reqDatabytes);}

**16.4 Sample code to update Vehicle**

Public void UpdateVehicle

{

 HttpWebRequest request = (HttpWebRequest)WebRequest

.Create("http:// ewaybill2.nic.in/ewaybillapi/EwayApi");

 request.Method = "POST";

 request.KeepAlive = true;

 request.AllowAutoRedirect = false;

 request.Accept = "\*/\*";

 request.ContentType = "application/json";

 request.Headers.Add("client-id", "TESTCLIENTID");

 request.Headers.Add("client-secret", "CLIENTSECRET");

 request.Headers.Add("gstin", "29AAACGIIIII1Z3");

 request.Headers.Add("authtoken", "0aAjBKdo7rcNYJB30g5DS2u8z");

 ewayapi.Entities.EwayBillApiRequest ewbReq = new

 ewayapi.Entities.EwayBillApiRequest();

 ewbReq.action = "VEHEWB";

 JavaScriptSerializer serial1 = new JavaScriptSerializer();

string jsonData = "{\"EwbNo\":111000609282,\"VehicleNo\":\"PQR1234\",\"FromPlace\":\"BANGALORE\",\"FromState\":29,\"ReasonCode\":\"1\",\"ReasonRem\":\"vehicle broke down\", \"TransMode\":\"1\", \"TransDocNo\":\"1\",\"TransDocDate\":\"10/11/2017\"}";

 ewbReq.data = encdec.EncryptBySymmetricKey(Convert.ToBase64String(System.Text.Encoding.UTF8.GetBytes(jsonData)), sek);

 using (var streamWriter = new StreamWriter(request.GetRequestStream()))

 {

 string json = serial1.Serialize(ewbReq);

 streamWriter.Write(json);

 streamWriter.Flush();

 streamWriter.Close();

 }

 WebResponse response = request.GetResponse();

 string result = new StreamReader(response.GetResponseStream()).ReadToEnd();

 serial1 = new JavaScriptSerializer();

Step 3: Receive the response. Decrypt and Decode the Base 64 string to plain text

 ewayapi.Entities.EwayBillApiResponse ewbres =

 serial1.Deserialize<ewayapi.Entities.EwayBillApiResponse>(result);

string data = encdec.DecryptBySymmetricKey(ewbres.data, Convert.FromBase64String(sek));

yte[] reqDatabytes = Convert.FromBase64String(data);

 string requestData = System.Text.Encoding.UTF8.GetString(reqDatabytes);}

}

**16.5 Sample code to Generate Consolidated Eway bill**

Public void GenerateConsolidatedEwb()

{

 HttpWebRequest request = (HttpWebRequest)WebRequest

. Create("http:// ewaybill2.nic.in/ewaybillapi/EwayApi");

 request.Method = "POST";

 request.KeepAlive = true;

 request.AllowAutoRedirect = false;

 request.Accept = "\*/\*";

 request.ContentType = "application/json";

 request.Headers.Add("client-id", "TESTCLIENTID");

 request.Headers.Add("client-secret", "CLIENTSECRET");

 request.Headers.Add("gstin", "29AAACGIIIII1Z3");

 request.Headers.Add("authtoken", "0aAjBKdo7rcNYJB30g5DS2u8z");

 ewayapi.Entities.EwayBillApiRequest ewbReq = new

 ewayapi.Entities.EwayBillApiRequest();

 ewbReq.action = "GENCEWB";

 JavaScriptSerializer serial1 = new JavaScriptSerializer();

 string jsonData = "{\"fromPlace\":\"BANGALORE SOUTH\",\"fromState\":\"29\",\"vehicleNo\":\"KA12AB1234\",\"transMode\":\"1\", \"TransDocNo\":\"1\",\"TransDocDate\":\"10/11/2017\", \"tripSheetEwbBills\":[{\"ewbNo\":111000609282},{\"ewbNo\":181000609270}]}";

ewbReq.data = encdec.EncryptBySymmetricKey(Convert.ToBase64String(System.Text.Encoding.UTF8.GetBytes(jsonData)), sek);

 using (var streamWriter = new StreamWriter(request.GetRequestStream()))

 {

 string json = serial1.Serialize(ewbReq);

 streamWriter.Write(json);

 streamWriter.Flush();

 streamWriter.Close();

 }

 WebResponse response = request.GetResponse();

 string result = new StreamReader(response.GetResponseStream()).ReadToEnd();

 serial1 = new JavaScriptSerializer();

Step 3: Receive the response. Decrypt using sek and Decode the Base 64 string to plain text

 ewayapi.Entities.EwayBillApiResponse ewbres =

 serial1.Deserialize<ewayapi.Entities.EwayBillApiResponse>(result);

string data = encdec.DecryptBySymmetricKey(ewbres.data, Convert.FromBase64String(sek));

yte[] reqDatabytes = Convert.FromBase64String(data);

 string requestData = System.Text.Encoding.UTF8.GetString(reqDatabytes);}

}

**16.6 Sample code to Cancel Eway bill**

Public void CancelEwayBill()

{

HttpWebRequest request = (HttpWebRequest)WebRequest.Create("http://ewaybill2.nic.in/ewaybillapi/v1.01/EwayApi");

 request.Method = "POST";

 /\*Optional\*/

 request.KeepAlive = true;

 request.AllowAutoRedirect = false;

 request.Accept = "\*/\*";

 request.ContentType = "application/json";

 request.Headers.Add("client-id", "TESTCLIENTID");

 request.Headers.Add("client-secret", "CLIENTSECRET");

 request.Headers.Add("gstin", "29AAACGIIIII1Z3");

 request.Headers.Add("authtoken", "0aAjBKdo7rcNYJB30g5DS2u8z");

 ewayapi.Entities.EwayBillApiRequest ewbReq = new

 ewayapi.Entities.EwayBillApiRequest();

 ewbReq.action = "CANEWB";

JavaScriptSerializer serial1 = new JavaScriptSerializer();

string jsonData = "{\"ewbNo\":111000609282,\"cancelRsnCode\":2,\"cancelRmrk\":\"Cancelled the order\"}";

ewbReq.data = encdec. EncryptBySymmetricKey (Convert.ToBase64String(System.Text.Encoding.UTF8.GetBytes(jsonData)), sek);

 using (var streamWriter = new StreamWriter(request.GetRequestStream()))

 {

 string json = serial1.Serialize(ewbReq);

 streamWriter.Write(json);

 streamWriter.Flush();

 streamWriter.Close();

 }

 WebResponse response = request.GetResponse();

 string result = new StreamReader(response.GetResponseStream()).ReadToEnd();

 serial1 = new JavaScriptSerializer();

Step 3: Receive the response. Decrypt and Decode the Base 64 string to plain text

 ewayapi.Entities.EwayBillApiResponse ewbres =

 serial1.Deserialize<ewayapi.Entities.EwayBillApiResponse>(result);

string data = encdec.DecryptBySymmetricKey(ewbres.data, Convert.FromBase64String(sek));

yte[] reqDatabytes = Convert.FromBase64String(data);

 string requestData = System.Text.Encoding.UTF8.GetString(reqDatabytes);}

}

**16.7 Sample code to Reject Eway bill**

Public void RejectEwayBill()

{

HttpWebRequest request = (HttpWebRequest)WebRequest.Create("http://ewaybill2.nic.in/ewaybillapi/v1.01/EwayApi");

 request.Method = "POST";

 /\*Optional\*/

 request.KeepAlive = true;

 request.AllowAutoRedirect = false;

 request.Accept = "\*/\*";

 request.ContentType = "application/json";

 request.Headers.Add("client-id", "TESTCLIENTID");

 request.Headers.Add("client-secret", "CLIENTSECRET");

 request.Headers.Add("gstin", "29AAACGIIIII1Z3");

 request.Headers.Add("authtoken", "0aAjBKdo7rcNYJB30g5DS2u8z");

 ewayapi.Entities.EwayBillApiRequest ewbReq = new ewayapi.Entities.EwayBillApiRequest();

 ewbReq.action = "REJEWB";

 JavaScriptSerializer serial1 = new JavaScriptSerializer();

 string jsonData = = "{\"ewbNo\":111000609282}";

ewbReq.data = encdec. EncryptBySymmetricKey (Convert.ToBase64String(System.Text.Encoding.UTF8.GetBytes(jsonData)), sek);

 using (var streamWriter = new StreamWriter(request.GetRequestStream()))

 {

 string json = serial1.Serialize(ewbReq);

 streamWriter.Write(json);

 streamWriter.Flush();

 streamWriter.Close();

 }

 WebResponse response = request.GetResponse();

 string result = new StreamReader(response.GetResponseStream()).ReadToEnd();

 serial1 = new JavaScriptSerializer();

 ewayapi.Entities.EwayBillApiResponse ewbres =

 serial1.Deserialize<ewayapi.Entities.EwayBillApiResponse>(result);

string data = encdec. DecryptBySymmetricKey (ewbres.data, Convert.FromBase64String(sek));

yte[] reqDatabytes = Convert.FromBase64String(data);

 string requestData = System.Text.Encoding.UTF8.GetString(reqDatabytes);}

}

**16.8 Sample code for Get Methods**

Public void GetEwayBill()

{

HttpWebRequest request = (HttpWebRequest)WebRequest.Create("http://ewaybill2.nic.in/ewaybillapi/v1.01/EwayApi/GetEwayBill?ewbNo=191000001846");

request.Method = "GET";

 request.KeepAlive = true;

 request.AllowAutoRedirect = false;

 request.Accept = "\*/\*";

 request.ContentType = "application/json";

 request.Headers.Add("client-id", "TESTCLIENTID");

 request.Headers.Add("client-secret", "CLIENTSECRET");

 request.Headers.Add("gstin", "29AAACGIIIII1Z3");

 request.Headers.Add("authtoken", "0aAjBKdo7rcNYJB30g5DS2u8z");

 WebResponse response = request.GetResponse();

 string result = new StreamReader(response.GetResponseStream()).ReadToEnd();

 JavaScriptSerializer serial1 = new JavaScriptSerializer();

ewayapi.Entities.EwayBillApiResponseForGet ewbres = serial1.Deserialize<ewayapi.Entities.EwayBillApiResponseForGet>(result);

string rek = encdec.DecryptBySymmetricKey (ewbres.rek, Convert.FromBase64String(sek));

string data = encdec.DecryptBySymmetricKey (ewbres.data, Convert.FromBase64String(rek));

byte[] reqDatabytes = Convert.FromBase64String(data);

 //byte[] reqDatabytes = Convert.FromBase64String(ewbres.data); string requestData = System.Text.Encoding.UTF8.GetString(reqDatabytes);

 //string hmac = encdec.GenerateHMAC(requestData, Convert.FromBase64String(rek));

string hmac = encdec.GenerateHMAC(data, Convert.FromBase64String(rek)); if (ewbres.hmac == hmac){

 }

}

# Sample Code in Java to integrate this API with Tax Payer System

**16.1 Encryption and Decryption**

Asymmetric Encryption (RSA)

The following Java code snippet can be used for encrypting the password and the appkey using the public key given by the E-way bill System. The encryption method used here is RSA.

public static String encryptAsymmetricKey(String pubkey, String password) throws Exception{

 PublicKey publicKeys = convertPubStringToKey(pubkey);

 Cipher cipher = Cipher.getInstance("RSA/ECB/PKCS1PADDING");

 cipher.init(Cipher.ENCRYPT\_MODE, publicKeys);

 byte[] encryptedText = cipher.doFinal(password.getBytes());

 String encryptedPassword = Base64.encodeBase64String(encryptedText);

 return encryptedPassword;

 }

private static PublicKey convertPubStringToKey(String publikkey)

{

 PublicKey pubKey = null;

 byte[] publicBytes = Base64.decodeBase64(publikkey);

 X509EncodedKeySpec keySpec = new X509EncodedKeySpec(publicBytes);

 KeyFactory keyFactory;

 try {

 keyFactory = KeyFactory.getInstance("RSA");

 pubKey = keyFactory.generatePublic(keySpec);

 } catch (Exception e)

 {

 e.printStackTrace();

 }

 return pubKey;

}

public static String encryptAsymmetricKey(String pubkey, byte[] appKey) throws Exception

{

 PublicKey publicKeys = covertPubStringToKey(pubkey);

 Cipher cipher = Cipher.getInstance("RSA/ECB/PKCS1PADDING");

 cipher.init(Cipher.ENCRYPT\_MODE, publicKeys);

 byte[] encryptedText = cipher.doFinal(appKey);

 String encryptedAppKey = Base64.encodeBase64String(encryptedText);

 return encryptedAppKey;

}

**Symmetric Key Encryption using Java**

private static String encryptBySymmetricKey(String json, String decryptedSek)

{

 byte[] sekByte = Base64.decodeBase64(decryptedSek);

 Key aesKey = new SecretKeySpec(sekByte, "AES");

 try {

 Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5Padding");

 cipher.init(Cipher.ENCRYPT\_MODE, aesKey);

 byte[] encryptedjsonbytes = cipher.doFinal(json.getBytes());

 String encryptedJson = Base64.encodeBase64String(encryptedjsonbytes);

 return encryptedJson;

 }

 catch(Exception e) {

 return "Exception "+e;

 }

}

 **Symmetric Key Decryption using Java**

public static String decrptyBySyymetricKey(String encryptedSek, byte[] appKey)

 {

 Key aesKey = new SecretKeySpec(appKey, "AES"); // converts bytes(32 byte random generated) to key

 try {

 Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5Padding"); // encryption type = AES with padding PKCS5

 cipher.init(Cipher.DECRYPT\_MODE, aesKey); // initiate decryption type with the key

 byte[] encryptedSekBytes = Base64.decodeBase64(encryptedSek); // decode the base64 encryptedSek to bytes

 byte[] decryptedSekBytes = cipher.doFinal(encryptedSekBytes); // decrypt the encryptedSek with the initialized cipher containing the key(Results in bytes)

String decryptedSek = Base64.encodeBase64String(decryptedSekBytes); // convert the decryptedSek(bytes) to Base64 StriNG

 return decryptedSek; // return results in base64 string

 }catch(Exception e)

{

 return "Exception; "+e;

 }

}

 **Annexure -A : Data Structure Specification – A1 E-way Bill Generation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter Name** | **Type** | **Description** | **Values** | **Sample Data** | **Allowed character** |
|  |  |  |  |  |  |
| userGstin  | Text (15) | GSTIN of API User |   | 29ACGPI2251K1ZJ | Alphanum  |
| supplyType | Text(1) | Supply whether it is outward/inward. | Refer Code List | O |   |
| subSupplyType | Number(2) | Sub types of Supply  | Refer Code List | 2 |   |
| docType  | Text(3) | Document Type | Refer Code List | CHL |   |
| docNo  | Text(50) | Document No |   | 12 | Alphanum, -, / |
| docDate  | Text | Document Date | dd/mm/yyyy format | 12/09/2017 |   |
| fromGstin  | Text(15) | GSTIN of the Consignor |   | 29AAAAA0300L1Z8 | Alphanum |
| fromTrdName  | Text(100) | LegalName of consignor |   | ABHYUDHYA CO OP BANK | Alphanumeric |
| fromAddr1  | Text(120) | Address of consignor - Line 1 |   | Shambhai Fortune | Alphanumeric |
| fromAddr2  | Text(120) | Address of consignor - Line 2 |   | Behind KSRTC Bus Stop | Alphanumeric |
| fromPlace  | Text(50) | Place of consignor |   | Bengaluru | Alphabetic |
| fromPincode  | Number(6) | Pincode of consignor |   | 576101 | Number |
| fromStateCode  | Number(2) | State of consignor | Refer Code List | 29 |   |
| toGstin  | Text(15) | GSTIN of consignee |   | 29ACGPI2251K1ZJ | Alphanumeric |
| toTrdname  | Text(100) | Legalname of consignee |   | INDER CHHAJER | Alphanumeric |
| toAddr1  | Text(120) | Address of consignee - Line 1 |   | PRIYADARSHANI LAYOUT  | Alphanumeric |
| toAddr2  | Text(120) | Address of consignee- Line 2 |   | MUDALAYAPALYA  | Alphanumeric |
| toPlace  | Text(50) | Place of consignee |   | Bengaluru | Alphabetic |
| toPincode  | Number(6) | Pincode of the consignee |   | 560072 | Number |
| toStateCode  | Number(2) | State of Supply | Refer Code List | 4 |   |
| totalValue  | Decimal(18,2) | Total Amount/ Taxable Amount |   | 2000 |   |
| cgstValue  | Decimal(18,2) | CGST Amount  |   | 0 |   |
| sgstValue  | Decimal(18,2) | SGST Amount |   | 0 |   |
| igstValue  | Decimal(18,2) | IGST Amount |   | 240 |   |
| cessValue  | Decimal(18,2) | CESS Amount |   | 20 |   |
| transMode  | Number(1) | Mode of transportation | Refer Code List | 1 |   |
| VehicleType | Char(1) | Type of Vehcile | R or O | R |  |
| transDistance  | Number(5) | Distance of transportation |   | 10 | Max Value = 4000 |
| transporterId | Text(15) | Transporter Id |   | 29BQSPA3829E1Z0 |   |
| transporterName | Text(100) | Transporter Name |   | TAPURI |   |
| transDocNo  | Text(15) | Transporter Doc No |   | 11 |   |
| transDocDate  | Text | Transporter Doc Date | dd/mm/yyyy format | 13/09/2017 |   |
|   |   |   |   |   |   |
| vehicleNo | Text(10) | Vehicle No. | Pl refer Code List | KA12BL4567 | Vehicle No. to begin with state code as given in the Code list |
|  |  |  |   |  |   |
| productName | Text(100) | Name of the Product |   | Steel |   |
| productDesc |   | Description of the Product |   | 5mm Rod |   |
| hsnCode | Number(8) | HSN Code of the Product |   | 10101 |   |
| quantity | Decimal(8,2) | Quantity of Product in Numbers |   | QTS |   |
| qtyUnit | Text(3) | Unit of the Product, like Liter,Kg etc | Refer Code List | 200 |   |
| taxableAmount | Decimal(18,2) | Total Amount/ Taxable Amount |   | 100000 |   |
| cgstRate | Decimal(6,3) | CGST Rate |   | 9 |   |
| sgstRate | Decimal(6,3) | SGST Rate |   | 9 |   |
| igstRate | Decimal(6,3) | IGST Rate |   | 18 |   |
| cessRate | Decimal(6,3) | CESS Rate |   | 0 |   |
|   |   |   |   |   |   |
| Status | Number(1) | Status code | 1-Success, 0 - Fail |   |   |
|  errorCodes | Text(200) | Refer Error Codes |   |   |   |
| docNo | Text(50) | Document number of EwayBill  |   |   |   |
| ewayBillNo | Number(12) | Unique E-Way Bill No |   |   |   |
|  ewayBillDate | Text(22) | Date and Time of E-Way Bill Generation | dd/mm/yyyy hh:mm:ss AM/PM |   |   |
|   |   |   |   |   |   |

**Annexure -A2 : Consolidated E-way bill generation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter Name** | **Type** | **Description** | **Values** | **Sample Data** | **Allowed character** |
|  vehicleNo | Text(20) | vehicle number |   | KA12AP1235 | Alpha-numeric |
|  fromPlace | Text(50) | from place of consignor |   | Rajasthan | Alphabetic |
| transMode | Number(3) | Mode of Transportation | Refer Code list | 2 | Number |
| transDocNo | Text(50) | Transporter Document number |  | 12-86/3 | Alphanumeric, -, / |
| transDocDate  | Text | Transporter Document Date | dd/mm/yyyy format | 12/09/2017 |   |
| fromState | Number(2) | State of Consignor | Refer Code list | 8 |  |
| tripSheetEwbBills |  | List of eway bills |  |  |  |
| ewbNo | Number(20) | E-way bill Number generated |   | 345654565456  | Number |

**Annexure -A3: Update Vehicle number**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter Name** | **Type** | **Description** | **Values** | **Sample Data** | **Allowed character** |
| EwbNo | Number(12) | E-way bill Generated |   | 131000026768  | Numbers |
|  VehicleNo | Text(20) | Vehicle number |   | KA12TR1234 | Alpha-numeric |
| FromPlace | Text(50) | Place of Consignor |   | BANGALORE SOUTH | Alpha-numeric |
| FromState | Number(2) | State of Consignor | Refer Code list | 29 | Numbers |
| ReasonCode | Number(1) | Reason code for vehicle updation | Refer Code list | 2 | Numbers |
| ReasonRem | Text(50) | Reason for Vehicle Updation |   | Vehicle details updated | Alpha-numeric |
| TransDocNo | Text(50) | Transporter Document number |  | 12-86/3 | Alphanumeric, -, / |
| TransDocDate  | Text | Transporter Document Date | dd/mm/yyyy format | 12/09/2017 |   |
| TransMode | Number(1) | Mode of Transport | Refer Code list | 1 | Numbers |

**Annexure -A4: Cancel E-way bill**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter Name** | **Type** | **Description** | **Values** | **Sample Data** | **Allowed character** |
| ewbNo | Number(12) | E-way bill Generated |   | 131000026768  | Numbers |
| cancelRsnCode | Number(1) | Reason code for cancelling eway bill | Refer Code list | 2 | Numbers |
|  cancelRmrk | Text(50) | Reason for - cancelling eway bill |   | Vehicle details not updated | Alpha-numeric |

**Annexure A5- Reject e-way bill**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter Name** | **Type** | **Description** | **Values** | **Sample Data** | **Allowed character** |
|  ewbNo | Number(12) | E-way bill Generated |   | 131000026768  | Numbers |

**Annexure B – Master codes List**

|  |  |  |
| --- | --- | --- |
| **Master Name** | **Code** | **Description** |
| **Supply Type** | I | Inward |
|   | O | Outward |
|   |   |   |
| **Sub Supply Type** | 1 | Supply |
|   | 2 | Import |
|   | 3 | Export |
|   | 4 | Job Work |
|   | 5 | For Own Use |
|   | 6 | Job work Returns |
|   | 7 | Sales Return |
|   | 8 | Others |
|   | 9 | SKD/CKD |
|   | 10 | Line Sales |
|   | 11 | Recipient Not Known |
|   | 12 | Exhibition or Fairs |
|   |   |   |
| **Document Type** | INV | Tax Invoice |
|   | BIL | Bill of Supply |
|   | BOE | Bill of Entry |
|   | CHL | Delivery Challan |
|   | CNT | Credit Note |
|   | OTH | Others |
|   |   |   |
| **Transportation Mode** | 1 | Road |
|   | 2 | Rail |
|   | 3 | Air |
|   | 4 | Ship |
|   |   |   |
| **Unit** | BAG | BAGS  |
|  | BAL | BALE |
|  | BDL | BUNDLES  |
|  | BKL | BUCKLES |
|  | BOU | BILLION OF UNITS |
|  | BOX | BOX |
|  | BTL | BOTTLES |
|  | BUN | BUNCHES |
|  | CAN | CANS |
|  | CBM | CUBIC METERS |
|  | CCM | CUBIC CENTIMETERS |
|  | CMS | CENTI METERS  |
|  | CTN | CARTONS |
|  | DOZ | DOZENS  |
|  | DRM | DRUMS |
|  | GGK | GREAT GROSS |
|  | GMS | GRAMMES |
|  | GRS | GROSS |
|  | GYD | GROSS YARDS |
|  | KGS | KILOGRAMS |
|  | KLR | KILOLITRE |
|  | KME | KILOMETRE |
|   |  MLT |  MILILITRE |
|  | MTS | METRIC TON |
|  | NOS | NUMBERS |
|  | OTH | OTHERS |
|  | PAC | PACKS |
|  | PCS | PIECES |
|  | PRS | PAIRS |
|  | QTL | QUINTAL |
|  | ROL | ROLLS |
|  | SET | SETS |
|  | SQF | SQUARE FEET |
|  | SQM | SQUARE METERS |
|  | SQY | SQUARE YARDS |
|  | TBS | TABLETS |
|  | TGM | TEN GROSS |
|  | THD | THOUSANDS |
|  | TON | TONNES |
|  | TUB | TUBES |
|  | UGS | US GALLONS |
|  | UNT | UNITS |
|  | YDS | YARDS |
|   |   |   |
| **State Code** |  |  |
|   | 1 | JAMMU AND KASHMIR |
|   | 2 | HIMACHAL PRADESH |
|   | 3 | PUNJAB |
|   | 4 | CHANDIGARH |
|   | 5 | UTTARAKHAND |
|   | 6 | HARYANA |
|   | 7 | DELHI |
|   | 8 | RAJASTHAN |
|   | 9 | UTTAR PRADESH |
|   | 10 | BIHAR |
|   | 11 | SIKKIM |
|   | 12 | ARUNACHAL PRADESH |
|   | 13 | NAGALAND |
|   | 14 | MANIPUR |
|   | 15 | MIZORAM |
|   | 16 | TRIPURA |
|   | 17 | MEGHALAYA |
|   | 18 | ASSAM |
|   | 19 | WEST BENGAL |
|   | 20 | JHARKHAND |
|   | 21 | ORISSA |
|   | 22 | CHHATTISGARH |
|   | 23 | MADHYA PRADESH |
|   | 24 | GUJARAT |
|   | 25 | DAMAN AND DIU |
|   | 26 | DADAR AND NAGAR HAVELI |
|   | 27 | MAHARASTRA |
|   | 37 | ANDHRA PRADESH |
|   | 29 | KARNATAKA |
|   | 30 | GOA |
|   | 31 | LAKSHADWEEP |
|   | 32 | KERALA |
|   | 33 | TAMIL NADU |
|   | 34 | PONDICHERRY |
|   | 35 | ANDAMAN AND NICOBAR |
|   | 36 | TELANGANA |
|  | 97 | OTHER TERRITORY |
|  | 99 | OTHER COUNTRY |
|   |   |   |
| **Vehicle Update Reason Code** | 1 | Due to Break Down |
|   | 2 | Due to Transhipment |
|   | 3 | Others (Pls. Specify) |
|   | 4 | First Time |
|  |  |  |
| Mode of generation code | API | Application Programming Interface |
|  | Exc | Bulk Upload |
|  | SMS | SMS Facility |
|  | APP | Mobile APP |
|  | WEB | Web based system |
|  |  |  |
| Valid Formats of Vehicle Numbers |  | AB121234 (First 2 char areState Code) |
|  |  | AB12A1234 (First 2 char are State Code) |
|  |  | AB12AB1234 (First 2 char are State Code) |
|  |  | ABC1234  |
|  |  | AB123A1234 (First 2 char areState Code) |
|  |  | DFXXXXXX (Defence Vehicle) |
|  |  | TRXXXXXXXXXXXXX (Temp RC) Atleast 5 characters |
|  |  | BPXXXXXXXXXXXXX (Bhutan Vehicle) Atleast 5 characters |
|  |  | NPXXXXXXXXXXXXX (Nepal Vehicle) Atleast 5 characters |
|  |  |  |
| E-way Bill Status | ACT | Active |
|  | CNL | Cancelled |
|  |  |  |
|  |  |  |
| Cancellation -Reason Codes  | 1 | Duplicate |
|  | 2 | Order Cancelled |
|  | 3 | Data Entry mistake |
|  | 4 | Others |
|  |  |  |

 **Annexure C – API Error codes List**

|  |  |
| --- | --- |
| **Error Code** | **Error Description** |
| 100 | Invalid Json |
| 101 | Invalid Username |
| 102 | Invalid Password |
| 103 | Invalid Client -Id |
| 104 | Invalid Client -Id |
| 105 | Invalid Token |
| 106 | Token Expired |
| 107 | Authentication failed. Pls. inform the helpdesk |
| 108 | Invalid login credentials. |
| 109 | Decryption of data failed |
| 110 | Invalid Client-ID/Client-Secret |
| 111 | GSTIN is not registered to this GSP |
| 201 | Invalid Supply Type |
| 202 | Invalid Sub-supply Type |
| 203 | Sub-transaction type does not belongs to transaction type |
| 204 | Invalid Document type |
| 205 | Document type does not match with transaction & Sub trans type |
| 206 | Invalid Invoice Number |
| 207 | Invalid Invoice Date |
| 208 | Invalid Supplier (FROM) GSTIN  |
| 209 | Blank Supplier (FROM) Address |
| 210 | Invalid or Blank Supplier(FROM) PIN Code |
| 211 | Invalid or Blank Supplier (FROM) state Code |
| 212 | Invalid Consignee (TO) GSTIN |
| 213 | Invalid Consignee(TO) Address |
| 214 | Invalid Consignee (TO) PIN Code |
| 215 | Invalid Consignee (TO) State Code |
| 216 | Invalid HSN Code |
| 217 | Invalid UQC Code |
| 218 | Invalid Tax Rate for Intra State Transaction |
| 219 | Invalid Tax Rate for Inter State Transaction |
| 220 | Invalid Transportation mode |
| 221 | Invalid Approximate Distance |
| 222 | Invalid Transporter Id |
| 223 | Invalid Transport Document Number |
| 224 | Invalid Transport Date |
| 225 | Invalid Vehicle Number Format |
| 226 | Both Transport and Vehicle Number Blank |
| 227 | User (Generator) Gstin cannot be blank |
| 228 | User id cannot be blank |
| 229 | Supplier name is required |
| 230 | Supplier place is required |
| 231 | Consignee name is required |
| 232 | Consignee place is required |
| 233 | Eway bill does not contain any items |
| 234 | Total amount/Taxable amount is mandatory |
| 235 | Tax rates for Intra state transaction is blank |
| 236 | Tax rates for Inter state transaction is blank |
| 237 | Invalid client -Id/client-secret |
| 238 | Invalid auth token |
| 239 | Invalid action |
| 240 | Could not generate eway bill, pls contact helpdesk |
| 301 | Invalid eway bill number |
| 302 | Invalid transporter mode |
| 303 | Vehicle number is required |
| 304 | Invalid vehicle format |
| 305 | Place from is required |
| 306 | Invalid from state |
| 307 | Invalid reason |
| 308 | Invalid remarks |
| 309 | Could not update vehicle details, pl contact helpdesk |
| 311 | Validity period lapsed, you cannot update vehicle details |
| 312 | This eway bill is either not generated by you or cancelled |
| 315 | Validity period lapsed, you cannot cancel this eway bill |
| 316 | Eway bill is already verified, you cannot cancel it |
| 317 | Could not cancel eway bill, please contact helpdesk |
| 320 | Invalid state to |
| 321 | Invalid place to |
| 322 | Could not generate consolidated eway bill |
| 325 | Could not retrieve data |
| 326 | Could not retrieve GSTIN details for the given GSTIN number |
| 327 | Could not retrieve data from hsn |
| 328 | Could not retrieve transporter details from gstin |
| 329 | Could not retrieve States List |
| 330 | Could not retrieve UQC list |
| 331 | Could not retrieve Error code |
| 334 | Could not retrieve user details by userid  |
| 336 | Could not retrieve transporter data by gstin  |
| 337 | Could not retrieve HSN details for the given HSN number |
| 350 | Could not generate consolidated eway bill |
| 357 | Could not retrieve eway bill details, pl. contact helpdesk |
| 358 | GSTIN passed in request header is not matching with the user gstin mentioned in payload JSON |
| 359 | User GSTIN should match to GSTIN(from) for outward transactions |
| 360 | User GSTIN should match to GSTIN(to) for inward transactions |
| 361 | Invalid Vehicle Type |
| 362 | Transporter document date cannot be earlier than the invoice date |
| 363 | E-way bill is not enabled for intra state movement for you state |

**Annexure D - JSON Schema**

D.1.For Generate Ewaybill

{

 "$schema": "http://json-schema.org/draft-04/schema#",

 "type": "object",

 "properties": {

 "supplyType": {

 "type": "string",

 "maxLength": 1,

 "minLength": 1,

 "enum": [ "O","I" ],

 "description": "Supply Type"

 },

 "subSupplyType": {

 "type": "string",

 "description": "Sub Supply Type"

 },

 "docType": {

 "type": "string",

 "enum": [ "INV", "CHL", "BIL","BOE","CNT","OTH" ],

 "description": "Document Type"

 },

 "docNo": {

 "type": "string",

 "maxLength": 16,

 "description": "Document Number (Alphanumeric with / and - are allowed)"

 },

 "docDate": {

 "type": "string",

 "pattern": "[0-3][0-9]/[0-1][0-9]/[2][0][1-2][0-9]",

 "description": "Document Date"

 },

 "fromGstin": {

 "type": "string",

 "maxLength": 15,

 "minLength": 15,

 "pattern": "[0-9]{2}[A-Z]{5}[0-9]{4}[A-Z][0-9][A-Z][0-9|A-Z]",

 "description": "From GSTIN (Supplier or Consignor)"

 },

 "fromTrdName": {

 "type": "string",

 "maxLength": 100,

 "description": "From Trade Name (Consignor Trade name)"

 },

 "fromAddr1": {

 "type": "string",

 "maxLength": 120,

 "description": "From Address Line 1 (Valid Special Chars #,-,/)"

 },

 "fromAddr2": {

 "type": "string",

 "maxLength": 120,

 "description": "From Address Line 2(Valid Special Chars # , - ,/)"

 },

 "fromPlace": {

 "type": "string",

 "maxLength": 50,

 "description": "From Place"

 },

 "fromPincode": {

 "type": "integer",

 "maximum": 999999,

 "minimum": 100000,

 "description": "From Pincode"

 },

 "fromStateCode": {

 "type": "integer",

 "maximum": 99,

 "description": "From State Code"

 },

 "toGstin": {

 "type": "string",

 "maxLength": 15,

 "minLength": 15,

 "pattern": "[0-9]{2}[A-Z]{5}[0-9]{4}[A-Z][0-9][A-Z][0-9|A-Z]",

 "description": "To GSTIN (Consignee or Recipient)"

 },

 "toTrdName": {

 "type": "string",

 "maxLength": 100,

 "description": "To Trade Name (Consignee Trade name or Recipient Trade name)"

 },

 "toAddr1": {

 "type": "string",

 "maxLength": 120,

 "description": "To Address Line 1 (Valid Special Chars #,-,/)"

 },

 "toAddr2": {

 "type": "string",

 "maxLength": 120,

 "description": "To Address Line 2 (Valid Special Chars #,-,/)"

 },

 "toPlace": {

 "type": "string",

 "maxLength": 50,

 "description": "To Place"

 },

 "toPincode": {

 "type": "integer",

 "description": "To Pincode"

 },

 "toStateCode": {

 "type": "integer",

 "maximum": 99,

 "description": "To State Code"

 },

 "totalValue": {

 "type": "number",

 "multipleOf": 0.01,

 "description": "Sum of Taxable value and Tax value"

 },

 "cgstValue": {

 "type": "number",

 "multipleOf": 0.01,

 "description": "CGST value"

 },

 "sgstValue": {

 "type": "number",

 "multipleOf": 0.01,

 "description": "SGST value"

 },

 "igstValue": {

 "type": "number",

 "multipleOf": 0.01,

 "description": "IGST value"

 },

 "cessValue": {

 "type": "number",

 "multipleOf": 0.01,

 "description": "Cess value"

 },

 "transMode": {

 "type": "string",

 "enum": ["1","2","3","4"],

 "description": "Mode of transport (Road-1, Rail-2, Air-3, Ship-4) "

 },

 "transDistance": {

 "type": "string",

 "description": "Distance (<4000 km) "

 },

 "transporterName": {

 "type": "string",

 "maxLength": 100,

 "description": "Name of the transporter"

 },

 "transporterId": {

 "type": "string",

 "description": "15 Digit Transporter GSTIN/TRANSIN"

 },

 "transDocNo": {

 "type": "string",

 "maxLength": 15,

 "description": "Transport Document Number (Alphanumeric with / and – are allowed)"

 },

 "transDocDate": {

 "type": "string",

 "description": "Transport Document Date"

 },

 "vehicleNo": {

 "type": "string",

 "maxLength": 10,

 "description": "Vehicle Number"

 },

 "vehicleType": {

 "type": "string",

 "description": "Vehicle Type"

 },

 "itemList": {

 "type": "array",

 "items": [

 {

 "type": "object",

 "properties": {

 "productName": {

 "type": "string",

 "maxLength": 100,

 "description": "Product / Item Name"

 },

 "productDesc": {

 "type": "string",

 "maxLength": 100,

 "description": "Product / Item description"

 },

 "hsnCode": {

 "type": "number",

 "description": "HSN Code"

 },

 "quantity": {

 "type": "number",

 "description":"Quantity"

 },

 "qtyUnit": {

 "type": "string",

 "maxLength": 3,

 "minLength": 3,

 "description": "Unit"

 },

 "taxableAmount": {

 "type": "number",

 "multipleOf": 0.01,

 "description":"Taxable Amount"

 },

 "sgstRate": {

 "type": "number",

 "multipleOf": 0.001,

 "description":"SGST Rate of Tax"

 },

 "cgstRate": {

 "type": "number",

 "multipleOf": 0.001,

 "description":"CGST Rate of Tax"

 },

 "igstRate": {

 "type": "number",

 "multipleOf": 0.001,

 "description":"IGST Rate of Tax"

 },

 "cessRate": {

 "type": "number",

 "multipleOf": 0.001,

 "description":"Cess Rate of Tax"

 }

 },

 "required": [

 "hsnCode",

 "taxableAmount"

 ]

 }

 ]

 }

 },

 "required": [

 "supplyType",

 "subSupplyType",

 "docType",

 "docNo",

 "docDate",

 "fromGstin",

 "fromPincode",

 "fromStateCode",

 "toGstin",

 "toPincode",

 "toStateCode",

 "transMode",

 "transDistance",

 "itemList"

 ]

}

D.2 Vehicle Updation

=================

{

 "$schema": "http://json-schema.org/draft-04/schema#",

 "type": "object",

 "properties": {

 "EwbNo": {

 "type": "number",

 "description":"Ewaybill Number"

 },

 "VehicleNo": {

 "type": "string",

"description":"Vehicle Number"

 },

 "FromPlace": {

 "type": "string",

 "maxLength": 50,

 "description":"From Place"

 },

 "FromState": {

 "type": "integer",

 "maximum": 99,

"description":"From State"

 },

 "ReasonCode": {

 "type": "string",

 "maxLength": 1,

 "minLength": 1,

"description":"Reason Code"

 },

 "ReasonRem": {

 "type": "string",

 "maxLength": 50,

 "description":"Remarks"

 },

 "TransDocNo": {

 "type": "string",

 "maxLength": 15,

 "description":"Transport Document Number"

 },

 "transDocDate": {

 "type": "string",

 "pattern": "[0-3][0-9]/[0-1][0-9]/[2][0][1-2][0-9]",

"description":"Transport Document Date"

 },

 "TransMode": {

 "type": "string",

"description":"Transport Mode"

 }

 },"required":[

"VehicleNo",

"FromPlace",

"FromState",

"ReasonCode",

 "ReasonRem",

"TransMode"

]

}

D.3 Cancellation

 {

"$schema": "http://json-schema.org/draft-04/schema#",

"type": "object",

"properties": {

 "ewbNo": {

 "type": "number",

 "description": "EwayBill Number"

 },

 "cancelRsnCode": {

 "type": "number",

 "description": "Reason for cancellation"

 },

 "cancelRmrk": {

 "type": "string",

 "description": "Remarks"

 }

},

"required": [

 "ewbNo",

 "cancelRsnCode"

]

}

D.4 Consolidated ewaybill

=======================

{

 "$schema": "http://json-schema.org/draft-04/schema#",

 "type": "object",

 "properties": {

 "fromPlace": {

 "type": "string",

 "maxLength": 50,

 "description": "From Place"

 },

 "fromState": {

 "type": "number",

 "description": "From State"

 },

 "vehicleNo": {

 "type": "string",

 "description": "Vehicle Number"

 },

 "transMode": {

 "type": "string",

 "enum": [

 "1",

 "2",

 "3",

 "4"

 ],

 "description": "Transport Mode (Road-1,Rail-2,Air-3,Ship-4)"

 },

 "TransDocNo": {

 "type": "string",

 "maxLength": 15,

 "description": "Transport Document Number "

 },

 "TransDocDate": {

 "type": "string",

 "pattern": "[0-3][0-9]/[0-1][0-9]/[2][0][1-2][0-9]",

 "description": "Transport Document Date "

 },

 "tripSheetEwbBills": {

 "type": "array",

 "items": [

 {

 "type": "object",

 "properties": {

 "ewbNo": {

 "type": "number",

 "description": "Ewaybill Number"

 }

 },

 "required": [

 "ewbNo"

 ]

 }

 ]

 }

 },

 "required": [

 "fromPlace",

 "fromState",

 "vehicleNo",

 "transMode",

 "TransDocNo",

 "TransDocDate",

 "tripSheetEwbBills"

 ]

}

D.5 Reject

{

 "$schema": "http://json-schema.org/draft-04/schema#",

 "type": "object",

 "properties": {

 "ewbNo": {

 "type": "number",

"description":"EwayBill Number"

 }

 },

 "required": [

 "ewbNo"

 ]

}