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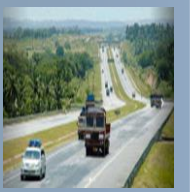
E-Way Bill System

User Manual for API Interface
(Site-to-Site integration)

National Informatics Centre

New Delhi

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List of Abbreviations

Abbreviation	Full Form
GSTIN	Goods and Services Tax Identification No
API	Application Program Interface
EBN No	e-way bill Number
EWB	e-way bill

1. 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 solution has been designed and developed by National Informatics Centre and it is being rolled out for the use of taxpayers and transporters. The API interface based mechanism is also enabled for the tax payers to generate the e-way bills directly linking their system with e-way bill system.

1.2 Purpose and Intended Audience

This document aims to explain the operational procedure on how to use API based interface can be used for generation of e-Way Bill. Also it explains the features and sample method of using this system.

This document is intended for big registered tax payers under GST and transporters, who are the main stakeholders of e-Way Bill system under GST.

1.3 Scope

The scope of this document covers:

- Benefits of the API interface
- Methods of API interface.
- API specification and process.
- List of APIs and purpose of them
- How to get further documents.

1.4 URL or Web site address

http://ewaybill.nic.in

2. API Interface

E-Way Bill team is happy to provide the API interface with E-Way Bill (EWB) system. The tax payers or transporters, who have automated their systems, can use this API to generate the e-way bill online from system to system. This API interface facilitates the tax payers or transporters to enable their automated system to call the EWB system to generate, update and pull the data related to their e-way bills.

2.1 Benefits

These APIs can be used by the Tax Payers or Transporters or GST Suvidha Providers. The tax payers or transporters can have the following benefits by having API interface with their systems:

- Duplicate or double entry of invoice can be avoided. Generally, the employees of the tax payers enter the sales details in their computerised system and generate the invoice. After that they will come to e-way bill system and generate the e-way bill.
- Mistakes while generating e-way bill can be avoided. In a hurry to generate the e-way bill, the employee may do a mistake in data entry of e-way bill form, resulting in generation of incorrect e-way bill.
- Two prints of invoice and e-way bill can be avoided. That is, transporter or driver of the vehicle can be given invoice print only and on that invoice print, the e-way bill number can be written.
- In manual process, the tax payer cannot link the e-way bill with invoice number in his system. Once, the tax payer uses the API interface, he can write the e-way bill number along with the invoice details in his system automatically.

2.2 Pre-requisites

To use the API interface, the tax payer has to meet the following conditions:

- The tax payer or transporter should have automated his invoice generation process.
- Tax payer or transporter should generate at least 1000 e-way bills per day or update vehicle numbers per day on the e-way bill system.

- The tax payer or transporter system should have SSL or TSL based domain name for interface.
- The tax payer or transporter system should have static IP address.
- The tax payer or transporter needs to modify his automated system for data exchange with EWB system as per the API.
- The tax payer or transporter should have pre-production system for testing.
- The tax payer or transporter needs to test his/her modified system on the EWB pre-production site with all types of activities/services.

2.3 On-boarding process

- Read the API related documents
- After logging into the e-way bill system, the tax payer or transporter has to select the 'For API' option under 'Registration' menu.
- Enter the request details – domain name, static IP, etc.
- After due verification by the concerned officer, the request will be approved.
- On approval, the EWB system generates the Client_Id, Client_Secret, UserName and Password and displays to the tax payer.
- Using this, IT team of the tax payer will change or modify their automated system.
- The tax payer will test modified system from his pre-production system with EWB pre-production system
- After thorough testing by the tax payer with all types of activities, at least 2000 activities, he will be enabled to move to production.

2.4 Interfacing examples

2.4.1 API Interface for Tax Payer system – One of the ways of interfacing

Note: This is one sample method/process of interfacing the EWB API into tax payer system. However, the tax payer can decide his process/method as per his business needs. No need to follow this only.

- The Tax payer enters invoice details in his automated system

- On submit of the invoice generation, the tax payer stores and generates the invoice number on his system

- Now, Tax payer system calls EWB API with relevant information for generation of e-way bill.

- EWB API after authentication and verification of information generates e-way bill and returns EBN No.

- The Tax payer system gets this EBN No. and saves to his database the EBN No. with related invoice record.

- The tax payer system prepares the invoice print, which will have the EBN No at the bottom and the tax payer prints the invoice and gives it to the transporter / driver for movement of goods.

2.4.2 API Interface for Transporter system - One of the ways of interfacing

Note: This is one sample method/process of interfacing the EWB API into tax payer system. However, the tax payer can decide his process/method as per his business needs. No need to follow this only.

- On hourly basis, Transporter system pulls all the e-waybills assigned to him using EWB API and stores into his system.

- Before movement of goods, transporter enters vehicle no. for his LR and saves in his system

- Now, Transporter system calls EWB system with EBN No. and other details requesting to update Part B of particular e-way bill.

- EWB system after authentication and verification of details, updates vehicle details and gives ACK.

- Transporter system updates this ACK in his system and prints the Trip sheet or manifesto.

- Now, Transporter moves the goods along with this trip sheet or manifesto.
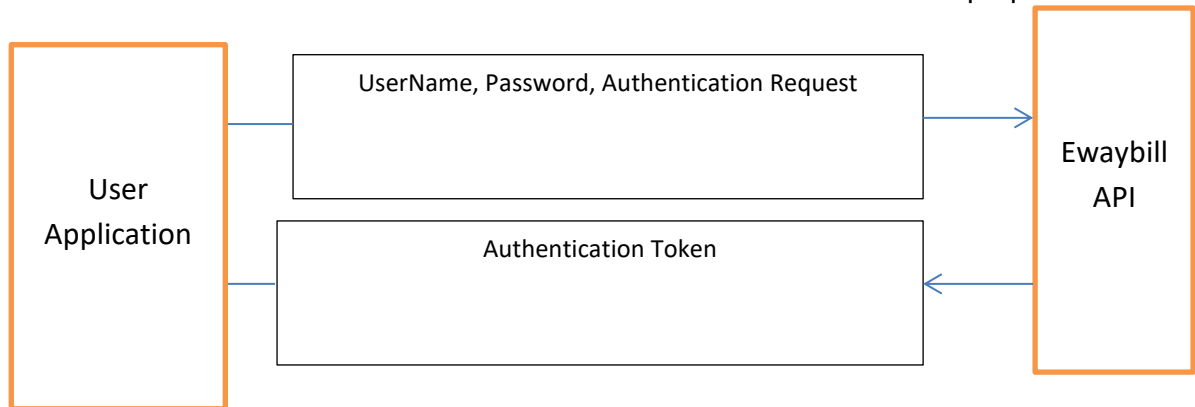
3. List of E-Way Bill API Services/Methods

Sl No.	API Service	API Description	Response (data)	Applicable To
1	Authenticate	Authenticate with the credential to access the APIs	Token	Tax Payer, Transporter, Suvidha Provider
2	Get e-Way Bill	Get the e-Way Bill details based on EWB Number	EWB Object, Vehicle details	Tax Payer, Transporter, Suvidha Provider
3	Get Consolidated E-Way Bill	Get the Consolidated e-Way Bill details based on EWB Number	CEWB Object, Vehcile Details	Transporter, Suvidha Provider
4	Get E-Way bill generated by others	Get the list of e-Way Bills generated by other party for my name based on generated date	List of EWBs (EWB_No, Date, Gen_GSTIN, Oth_party_GSTIN, TRN_Type, Sub_TRN_Type, Doc_no, Doc_date, Tot_value)	Tax Payer, Suvidha Provider
5	Get assigned E-Way Bills of my state	Get the list of e-Way Bills assigned to me for transportation in my state	List of EWBs (EWB_No, EWB_Date, Gen_GSTIN, TRANS_Doc_No, TRANS_Doc_Date, DEL_PIN_CODE, DEL_State)	Transporter
6	Get assigned E-Way Bill by GSTIN	Get the list of e-Way Bills assigned to me for transportation by particular GSTIN	List of EWBs (EWB_No, EWB_Date, Gen_GSTIN, TRANS_Doc_No, TRANS_Doc_Date, DEL_PIN_CODE, DEL_State)	Transporter
7	Generate E-Way Bill	Generate e-Way Bill	EWB_No, Date	Tax Payer, Transporter, Suvidha Provider
8	Update Vehicle Number to E-Way Bill	Update new vehicle number for the e-way Bill	EWB_No, Date, Ref_Uniq_No	Tax Payer, Transporter, Suvidha Provider
9	Cancel E-Way Bill	Cancel the e-Way Bill	EWB_No, Date, Ref_Uniq_No	Tax Payer, Transporter, Suvidha Provider

Sl No.	API Service	API Description	Response (data)	Applicable To
10	Reject E-Way Bill	Reject the e-Way Bill	EWB_No, Date, Ref_Uniq_No	Tax Payer, Suvidha Provider
11	Generate Consolidate E-Way Bill	Generate Consolidated e-Way Bill	CEWB_No, Date	Tax Payer, Transporter, Suvidha Provider
12	Update Vehicle Number for Consolidated E-Way Bill	Update new vehicle number for theConsolidated e-way Bill	CEWB_No, Date, Ref_Uniq_No	Tax Payer, Transporter, Suvidha Provider
13	Get HSN Master Codes	Get the HSN master codes	List of HSNs (HSN_Code, HSn_Descr)	Tax Payer, Transporter, Suvidha Provider
14	Get State Master Codes	Get the State master codes	List of States (State_code, State_name)	Tax Payer, Transporter, Suvidha Provider
15	Get UQC Master Codes	Get the Unit Quantity master codes	List of States (Uqc_code, Uqc_name)	Tax Payer, Transporter, Suvidha Provider
16	Get Error Codes	Get the Error master codes	List of States (err_type,err_code, err_name)	Tax Payer, Transporter, Suvidha Provider
17	Get New latest version APIs	Get the list of latest API version and release date	List of APIs (API_Name, Ver_No, Rel_Date)	Tax Payer, Transporter, Suvidha Provider
18	Get Alerts	Get alerts	List of Alerts (Date, Alert_type, Alert_message)	Tax Payer, Transporter, Suvidha Provider
19	Get GSTIN details	Get the GST tax payer details	GSTIN Object	Tax Payer, Transporter, Suvidha Provider
20	Get TRANSIN details	Get the Transporter details	TRANSIN Object	Tax Payer, Transporter, Suvidha Provider

4. Authentication API

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.

```
┌──────────────┐     ┌────────────────────────────────────────────┐     ┌──────────┐
│              │ ──► │    UserName, Password, Authentication Request │ ──► │          │
│    User      │     └────────────────────────────────────────────┘     │ Ewaybill │
│ Application  │     ┌────────────────────────────────────────────┐     │   API    │
│              │ ◄── │         Authentication Token                 │ ◄── │          │
└──────────────┘     └────────────────────────────────────────────┘     └──────────┘
```

5. Service Request API

To access the service requests like generate e-way bill, update vehicle, cancel e-way bill, the user application should have the valid authentication token. With the authentication token he has to send the request for the services with the relevant parameters to get the response or result.

```
┌─────────────┐          ┌──────────────────────────────────────┐          ┌─────────────┐
│             │          │  Header: UserName, Password, authtoken,│          │             │
│             │          │  Service Request with Parameters       │──────→   │             │
│    User     │─────────│                                        │          │  Ewaybill   │
│ Application │          └──────────────────────────────────────┘          │    API      │
│             │          ┌──────────────────────────────────────┐          │             │
│             │          │         Response:                      │ ←──────  │             │
│             │          │                                        │          │             │
└─────────────┘          └──────────────────────────────────────┘          └─────────────┘
```
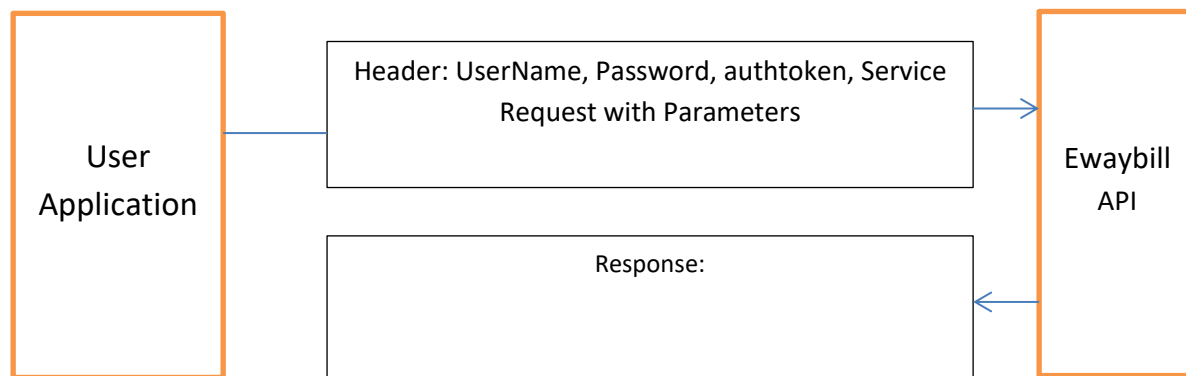
6. API Overview

The EWAYBILL APIs are used to communicate between Tax Payers and Transporters of e-way Bill System. This section describes standards and formats which will be used to define API exposed by EWAYBILL systems. EWAYBILL APIs will be implemented as RESTful Web services.

- EWAYBILL APIs will be published as RESTful web service over HTTPS.
- HTTP Methods for API – GET to fetch data from EWAYBILL and POST to submit data to EWAYBILL
- Content Type is JSON file

7. API supporting Documents

The following documents are shared online, once the tax payer registers for API.

- API Specification details
- API field details
- Master Codes
- Error Codes
- Sample JSON Data format
- DSC for encryption