****

**Data Exchange Platform**

**API Setup Reference Guide**

**eWarranty – Vehicle Lookup**

**Version 1.5**

****

****

Contents

[**1.** **Document Control** 3](#_Toc120864240)

[**2.** **Overview** 3](#_Toc120864241)

[**3.** **Pre-requisites to access the API** 4](#_Toc120864242)

[**4.** **API setup** 4](#_Toc120864243)

[**5.** **Connection Details** 4](#_Toc120864244)

[**6.** **Request and Response Structure** 5](#_Toc120864245)

[**6.1.** **Request Description** 5](#_Toc120864246)

[**6.2.** **Response Description** 5](#_Toc120864247)

[**6.3** **Examples** 11](#_Toc120864248)

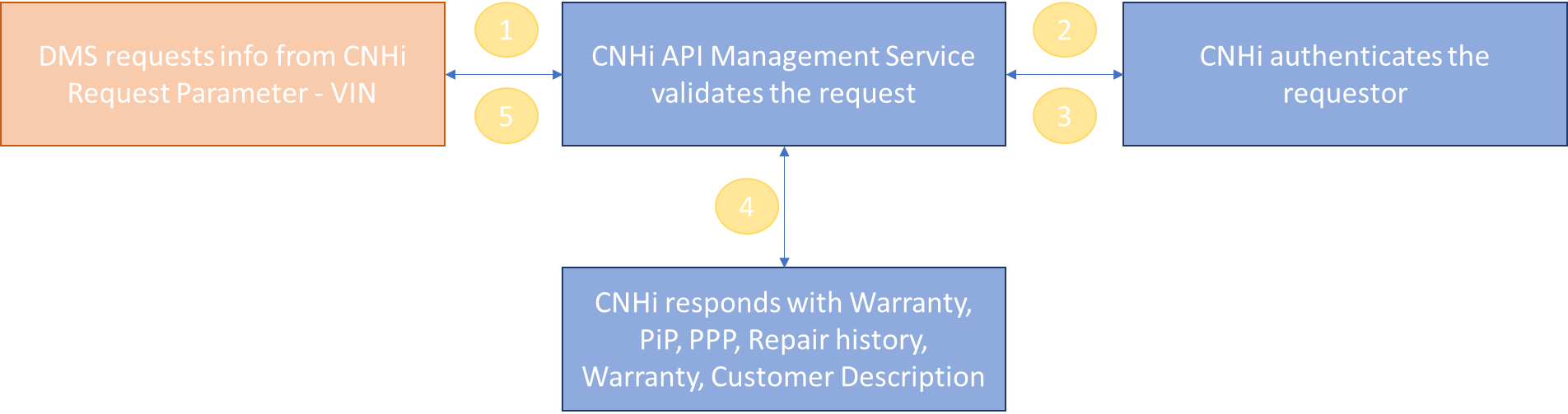
# **Document Control**

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Revision Date | Revision History | Author |
| 1.0 | August 2022 | New Release | TCS |
| 1.1 | 26 August 2022 | Reformat | Tina Klag |
| 1.2 | 16 September 2022 | Adding UAT urls and version control info | TCS/Tina Klag |
| 1.3 | 11 October 2022 | Subscription key steps in Pre-requisites section. URLs update in Connection details Section. Post man collection in the Examples section | TCS |
| 1.4 | 28 November 2022 | Update APIM URL to given domain URL | TCS |
| 1.5 | 02 December 2022 | Update Prod URLs | TCS |

# **Overview**

Warranty Vehicle Lookup API is designed to allow the dealers to retrieve the Warranty information from CNH Industrial Warranty system for a given Vehicle Identification Number (VIN) on a real-time basis. The API provides information about the Repair history, PiP, and PPP, Vehicle description, End Customer description along with the Warranty data, for the selected Vehicle Identification Number (VIN). All the information presented as a response by this API is sourced from the SAP e-Warranty system.

Pictorial representation of the data flows below.



# **Pre-requisites to access the API**

* Dealer provides the DMS with a User ID for the Dealer Portal with eWarranty access.
* By providing eWarranty access via the Dealer Portal, the User ID should be set up in the ZWTY\_DP\_CUSPRMAP table associated with the Dealership complex SAP Ownership Group dealer code.
* Each DMS provider needs to have a Subscription key assigned by CNHi team. DMS to reach out to CNHi point of contact for the Subscription key.

# **API setup**

CNHi has built a data exchange platform (DEP), which provides the flexibility to the end users to request information in either of the following formats:

* REST API
* SOAP (legacy format already in use)

The DEP takes care of the format transformations (as needed) to process the request and provide a response to the DMS system.

DMS providers who already have the connection established to the SAP eWarranty system can continue to use the existing SOAP format. All such DMS providers are required to change the request end point URL alone in their systems (details in connection details section). The response format from the CNHi system will remain unchanged.

New DMS’s who are building this interface are recommended to the use the REST API for simplicity.

# **Connection Details**

Soap

|  |  |
| --- | --- |
| Environment | ZcnWtDmsVehicleLookup |
| DMS UAT - Staging/QA/UAT | <https://apim-uat.dep.cnhind.com/external/services/warranty/v1/vehiclelookup> |
| Production | https://apim.dep.cnhind.com/external/services/warranty/v1/vehiclelookup |

Rest

|  |  |
| --- | --- |
| Environment | ZcnWtDmsVehicleLookup |
| DMS UAT - Staging/QA/UAT | [https://apim-uat.dep.cnhind.com/external/services/warranty/v2/vehiclelookup/{serialnumber}](https://apim-uat.dep.cnhind.com/external/services/warranty/v2/vehiclelookup/%7bserialnumber%7d) |
| Production | https://apim.dep.cnhind.com/external/services/warranty/v2/vehiclelookup/{serialnumber}NOTEP |

# **Request and Response Structure**

* 1. **Request Description**

**Authentication**

* DMS will pass Basic auth in HTTP header for username/password.
* The User ID and Password will be set up in the Dealer Portal by the Dealer uniquely for the DMS access to interfaces.
* DEP API will require subscription-api-key in HTTP header to identify client and to be able to track API usage.

|  |  |
| --- | --- |
| Ocp-Apim-Subscription-Key | {CNHi Provided Subscription Value} |

API Request - SOAP

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| Request BODY | XML | <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"  xmlns:urn="urn:sap-com:document:sap:soap:functions:mc-style">  <soapenv:Header/>  <soapenv:Body>  <urn:ZcnWtDmsVehicleLookup>  <SerialNumber>{serialnumber}</SerialNumber>  </urn:ZcnWtDmsVehicleLookup>  </soapenv:Body>  </soapenv:Envelope> |

API Request - REST

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| {serialnumber} | CHAR(35) | Serial/Vehicle Identification Number of the unit |

# **Response Description**

The API response is structured at a high level as detailed in the table below.

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| <VehicleHeader> | single object | Maximum of 1 Header Structure |
| <VehicleServices> | Field Structure, array | This lists all the valid services on the unit. This structure will be repeated for each warranty service |
| <RepairHistoryTable> | Field Structure, array | This lists all the claims on the serial. This structure will be repeated for each claim |
| <PipTable> | Field Structure, array | This lists all the PIP for the serial. This structure will be repeated for each PIP |
| <EndCustomer> | Field Structure, single object | This shows the end-customer information. Maximum of 1 End-Customer Structure (Occurs 1) |
| <PppTable> | Field Structure, array | This shows the PPP information for Vehicle. This table will be blank |
| <ReturnMessages> | Field Structure, array | This is the errors listing structure. This structure will be repeated for each error / warning message |

The details of the various variables under each category of the response structure are detailed in the following tables.

**Vehicle Header**

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| VEHICLE\_NUMBER | CHAR(10) | SAP INTERNAL VEHICLE NBR (UINQUE) |
| MATERIAL\_NUMBER | CHAR(18) | FDP/SAP Product (above commercial model) |
| MATERIAL\_NUMBER\_DESC | CHAR(40) | FDP Description |
| LDP | CHAR(18) | Product Hierarchy |
| LDP\_DESC | CHAR(40) | Product Hierarchy Description |
| DEALER | CHAR(10) | SAP Dealer Code |
| DEALER\_NAME | CHAR(35) | SAP Dealer Name |
| SERIAL\_NUMBER | CHAR(35) | Vehicle Identification Number (Vehicle Identification No.) |
| VEHICLE\_SEARCH\_AREA | CHAR(10) | Vehicle Search Area |
| COMMERCIAL\_MODEL | CHAR(30) | Commercial Model |
| SALES\_ORG | CHAR(04) | Sales Organization |
| WARRANTY\_START\_DATE | CHAR(10) | Warranty Start Date |
| TECHNICAL\_TYPE | CHAR(10) | Technical Type |
| TECHNICAL\_TYPE\_DESC | CHAR(40) | Technical Type description |
| REGISTRATION\_TYPE | CHAR(10) | Registration Type |
| SERVICING\_DEALER | CHAR(12) | Partner |
| SERVICING\_DEALER\_NAME | CHAR(35) | Name 1 |

**Vehicle Services**

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| SERVICE\_DESCRIPTION | CHAR(40) | Description for reference |
| SERVICE | CHAR(18) | Service number |
| WARRANTY\_TYPE | CHAR(02) | Sort sequence |
| SERVICE\_DURATION | CHAR(30) | Characteristic Value |
| SERVICE\_START\_DATE | CHAR(30) | Characteristic Value |
| SERVICE\_END\_DATE | CHAR(30) | Characteristic Value |
| MILEAGE\_OR\_HOURS | CHAR(30) | Characteristic Value |
| SERVICE\_EVENT | CHAR(03) | Laboratory/design office |
| GRID | CHAR(20) | Services-vehicle association grid |
| GRID\_EVENT | CHAR(03) | Laboratory/design office |
| MONTHS\_PLUS\_MINUS | CHAR(05) | Months (+/-) |
| MASTER\_WARRANTY | CHAR(20) | Master warranty number |
| DEDUCTIBLE | DEC (06) | Numerical field (length 6) |

**Repair History**

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| CNH\_CLAIM\_NBR | CHAR(12) | CNH SAP Claim Dealer (Unique) |
| DEALER\_CLAIM\_NBR | CHAR(10) | Processing Status of Warranty Claim |
| CLAIM\_PROCESSING\_STATUS | CHAR(04) | Description of Processing Status of Warranty Claim |
| CLAIM\_STATUS\_DESCRIPTION | CHAR(40) | Description of Processing Status of Warranty Claim |
| DEALER\_CODE | CHAR(10) | Partner |
| DEALER\_NAME | CHAR(35) | Data Element Type CHAR Length 35 |
| WARRANTY\_TYPE | CHAR(04) | Warranty Claim Type |
| WARRANTY\_TYPE\_DESCRIPTION | CHAR(40) | Warranty Type Description |
| VEHCILE\_IN\_DATE | CHAR(10) | Vehicle In For Repair |
| VEHICLE\_HOURS\_AT\_REPAIR | NUM (10) | Vehicle HOURS at Repair Time |
| DEFECT\_CODE | CHAR(40) | Defect Code Number |
| FAILURE\_DESCRIPTION | CHAR(100) | Failure description |
| TOTAL\_AMOUNT\_APPROVED | NUM(13,2) | Total Amount Approved. This field will be blank if the claim does not belong to the dealer making the inquiry |
| TOTAL\_LABOR\_APPROVED | NUM(13,2) | Total Labor Approved. This field will be blank if the claim does not belong to the dealer making the inquiry |
| TOTAL\_MATERIAL\_APPROVED | NUM(13,2) | Total Material Approved. This field will be blank if the claim does not belong to the dealer making the inquiry |
| TOTAL\_EXTRWORK\_APPROVED | NUM(13,2) | Total External Work Approved. This field will be blank if the claim does not belong to the dealer making the inquiry |

**PiP**

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| PIP\_INTERNAL\_NBR | CHAR(12) |  |
| PIP\_NBR | CHAR(40) |  |
| PIP\_REF\_DATE | CHAR(10) |  |
| PIP\_EXPIRATION\_DATE | CHAR(10) |  |
| PIP\_DESCRIPTION | CHAR(60) |  |
| PIP\_EXECUTION\_STATUS | CHAR(01) |  |
| IN\_DATE | CHAR(10) |  |
| PIP\_DEALER | CHAR(10) |  |
| DEALER\_CLAIM\_NUMBER | CHAR(10) |  |
| VEHICLE\_STOLEN\_DATE | CHAR(10) |  |
| VEHICLE\_STOLEN\_INDICATOR | CHAR(01) |  |

**End Customer**

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| END\_CUSTOMER\_CODE | CHAR(10) | Business Partner Number |
| END\_CUSTOMER\_NAME | CHAR(40) | Name 1 |
| END\_CUSTOMER\_STREET | CHAR(60) | Street |
| END\_CUSTOMER\_CITY | CHAR(40) | City |
| END\_CUSTOMER\_STATE | CHAR(03) | Region (State, Province, County) |
| END\_CUSTOMER\_POSTALCODE | CHAR(10) | City postal code |
| END\_CUSTOMER\_COUNTRY | CHAR(03) | Country Key |

**PPP**

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| VHCLE | CHAR(10) | Int. Vehi. Number |
| SERIAL\_NUM | CHAR(35) | Serial Number |
| TYPE | CHAR(35) | Type |
| MODEL | CHAR(30) | Model |
| REGIS\_TYPE | CHAR(3) | Registration |
| NUM\_MONTHS | CHAR(3) | No. of Months |
| NUM\_HOURS | CHAR(9) | No. of Hours |
| COVER | CHAR(50) | Coverage |
| DEDUCTIBLE | CHAR(10) | Deductible |
| START\_DAT | DATS(8) | Start Date |
| END\_DAT | DATS(8) | End Date |

**Return Message**

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| Type | CHAR(01) | Message type: S - Success, E - Error, W - Warning, I - Info, A - Abort |
| Message | CHAR(220) | Text representing return message information |
| Number | CHAR(03) | Return Line Number |

The API responses are accompanied with a response code that describes the status (Successful, Unsuccessful) of the request. The below are the possible scenarios and their response codes.

**Response Codes**

|  |  |  |
| --- | --- | --- |
| Title | Reason | Code |
| SOAP and REST request | --- | --- |
| SOAP warranty success response | Success | 200 |
| REST warranty success response | Success | 200 |
| REST warranty failure response | Incorrect serial number | 200 |
| SOAP warranty failure response | Incorrect serial number | 200 |
| SOAP warranty failure response | <soapenv:Body> is empty | 200 |
| SOAP warranty failure response | xml payload is not valid xml | 500 |
| SOAP warranty failure response | incorrect authentication credentials | 401 |
| REST warranty failure response | incorrect authentication credentials | 401 |

# **Examples**

**SOAP Response**

****

**REST Response**



**Sample Postman Collection**

****