IOX API

Integration Document

v1.0.21

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Contents

API Documentation Update Logs

Tag	Update Time	Description	New Version
Link Nominated Driver To Vehicle	2021-08-03	Under Vehicle Request -> Link Nominated Driver to Vehicle added "referenceId" as a parameter. This field is mandatory. Also added API link to IOX API document.	1.0.21

API Specification:

The IOX API is an asynchronous instruction processor, instructions are added to a queue and the IOX Core application is responsible for processing these instructions. Once an instruction is processed the result will be **POSTED** to a webhook.

No unique path conventions to follow in the URL. API version, tenant identification and authorization details provided in request header (see below).

A specific API version can be requested in every call to the IOX API by assigning a version number to the 'api-version' key in the header. If omitted, IOX will assign the default version. The API versioning convention will follow a major.minor numbering system. E.g.: api-version: "1.0"

Additionally, a public key (Guid) used to identify the tenant should be included with every call to the IOX API. E.g.: tenant: "1AA1BBB6-82BB-42D4-81B7-4F31C69BD113"

All requests are served from api/external/

Link to C# Sample application:
https://github.com/iox-consulting/api_sample_app
Link to Test Environment for API:
http://redocly.github.io/redoc/?url=https://stagingintegration.ioxfleet.co.za/swagger/v1/swagger.json
Authorization code flow:
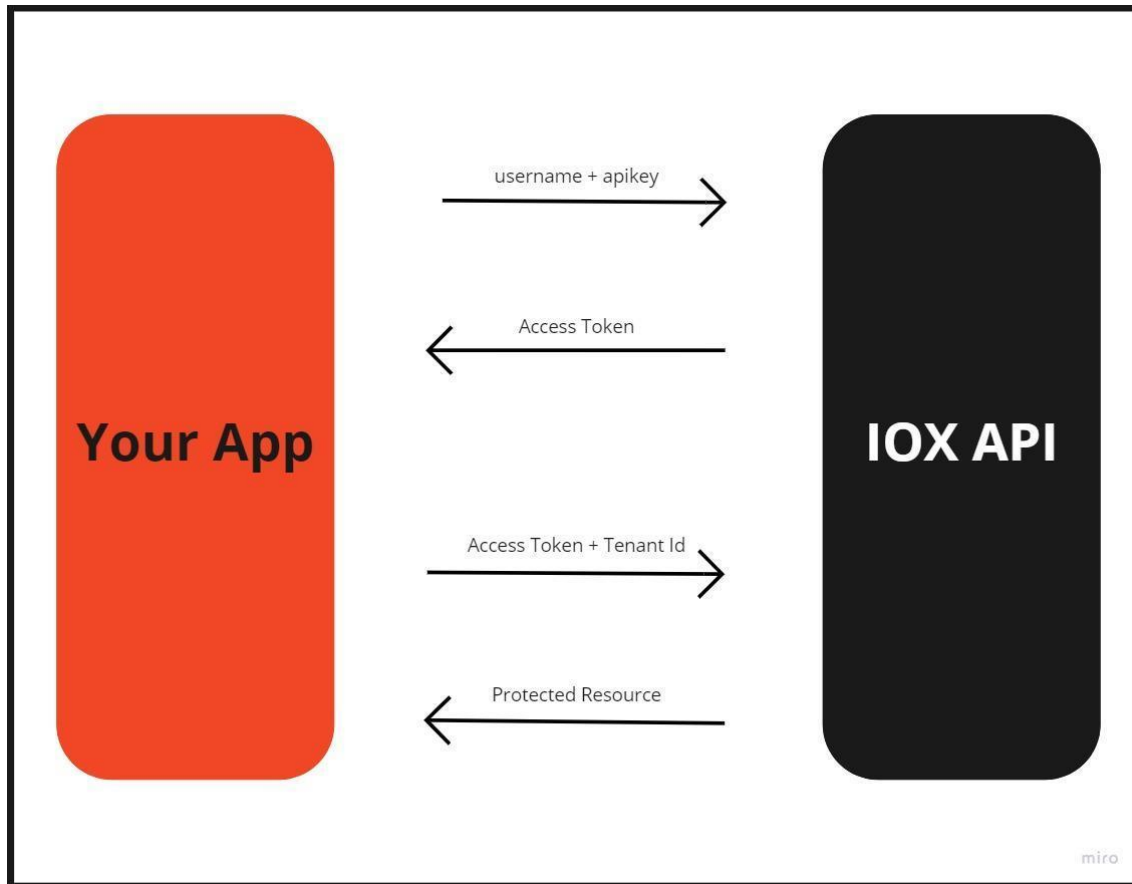
Requesting your token:

Post to the Request Token url (../api/ Auth/RequestToken)

Ensure the header has the following entries:

> Content-Type: application/json
> api-version: 1.0

The body should contain a **username** and **apikey**. The token endpoint will verify all the parameters in the request, ensuring the username and apikey matches. If everything checks out, it will generate your token and return it in the response.

The access token expires after 120 minutes, to request a new token repeat the above-mentioned process.

Call the API

Make calls against the IOX APIs by simply adding the following headers to your request:

Authorization: "Bearer " + access_token

tenant: tenantId

Once a request is made a new instruction is saved and a unique request reference will be returned in the response object.

Response Object:

Parameter	Data Type	Description
requestreference	String	Unique identifier for request (For further tracking during the request lifecycle)
status	String	Indicates the result of the request, either if it was successful or not. Possible values: Success Failed
errors	Array<ResponseError>	A collection of errors, if synchronous results of IOX API call, any possible validation errors caught before executing the instruction. If asynchronous, business logic errors while processing the instruction.
responseType	Int32	The following types can be returned: Instruction Status Update – 1 Account OTP - 3
result	Object	If Type is Account OTP result's type will be **AccountOTPResponse**

Response Error:

Parameter	Data Type	Description
code	Int32	Indicates pre-defined error code associated with an exception.
message	String	A detailed message of what went wrong.
details	Object	Contains additional details pertaining to the error as a JSON object
severity	String	Severity as "Error" or "Warning"
severityId	Int32	0: Error 1: Warning

Possible API calls

1. **Create Account - This request creates a new account**

Create Account Request - API Link: /api/external/accounts/createAccount

Parameter	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this account, internal to the 3rd party. This reference will be used to link individuals, vehicles and BRN to this account. A random string up to 20 characters
isBusinessAccount	Bool	Yes	Identifies account type

			True – Business Account False – Private Account
accountName	String	Yes	An account name
accountEmail	String	Yes	A contact email for the account
accountContactNumber	String	No	A contact number for the account
companyRegistrationNumber	String	Only if isBusinessAccount is true	Company registration number
contactPersonFirstName	String	Yes	Account contact person first name
contactPersonLastName	String	Yes	Account contact person last name
brn	Array<Brn>	No	A list of brns.
vehicles	Array<Vehicle>	No	A list of vehicles
individuals	Array<Individual>	Yes	A list of individuals
departments	Array<Department>	No	A list of departments

BRN

Parameter	Data type	Mandatory	Description
brnNumber	String	Yes, if CreateAccountRequest's isBusinessAccount is true and brns array is not empty.	Business registration number for Enatis
individualIdNumber	String	Yes, if CreateAccountRequest's isBusinessAccount is true and brns array is not empty.	Proxy's identification number
province	String	No	

Vehicle

Field	Data type	Mandatory	Description
licenseNumber	String	Yes	The vehicle license plate number
vinNumber	String	Yes	Vehicle VIN number
vehicleRegisterNo	String	Yes	Veh. Register no on disk
engineNumber	String	No	The vehicle engine number
licenseDiscNumber	String	Yes	The license disc number as displayed on the license disc
licenseExpiryDate	DateTime	Yes	The expiry date as displayed on the license disc
categoryId	Int32	Yes	A vehicle category. If incorrect, the quoted renewal will fail once instruction is issued to renewal network. See possible values below (**Vehicle Categories**)
descriptionId	Int32	No	A vehicle type description. If incorrect, the quoted renewal will fail once instruction is issued to renewal network. See possible values below (**Vehicle Descriptions**)
tare	Int32	Yes	The vehicle tare
make	String	No	The vehicle make
model	String	No	The vehicle model
colour	String	No	The vehicle colour

departmentName	String	No	Department name this vehicle will be linked to.
discImage	String	No	A base64 encoded string for the JPEG image of the current license disc.
Brn	String	Only if account's **isBusinessAccount** is true and account's vehicles array is not empty. This brn should also be listed in account's brn array.	The business brn number
individualIdNumber	String	Only If account's **isBussinessAccount** is false and account's vehicle array is not empty. This id number should also be listed in account's individual array.	The owner's identification number

Individual:

Field	Data type	Mandatory	Description
idType	String	Yes	RSAID | Passport | TRN
idNumber	String	Yes	The individual identification number for the given IdType
driversLicenseImage	String	No	A base64 encoded string for the JPEG image of the individual driver's license.
firstname	String	Yes	The individual first name, as specified in the supplied ID
lastname	String	Yes	The individual last name, as specified in the supplied ID
initials	String	Yes	The individual's initials
driversLicenseNumber	String	No	The individual's driver license number
driversLicenseExpirtyDate	DateTime	No	The individual's driver license expiry date

Department

Parameter	Data type	Mandatory	Description
name	String	Yes, if department array is not empty.	Department name

2. **Send Account Email Invites – This request triggers account invites to be sent to the provided users.**

AccountInviteTokenRequest - API LInk: /api/external/accounts/SendAccountInvites

Field	Data type	Mandatory	Description
accountReference	String	Yes	A unique reference to an existing account.
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountInvites	Array<AccountInvite>	Yes	At least one account invite should be present

AccountInvite

Field	Data type	Mandatory	Description
firstName	String	Yes	First name of person to receive invite token.
lastName	String	Yes	Last name of person to receive invite token.
email	String	Yes	Email of person to receive invite token.

3. **Request Account OTP -This request-requests an account OTP**

AccountOTPRequest - API Link: /api/external/accounts/RequestAccountOTP

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction.
accountReference	String	Yes	A unique reference to this account, internal to the 3rd party.

4. **Create Department – This request creates a new department**

DepartmentRequest - API LInk: /api/external/departments/createDepartment

Field	Data type	Mandatory	Description
name	String	Yes	Department name
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this department will be linked to. An account with this reference should already have been created.

5. **Create / Update BRN**

BRNRequest API Link: /api/external/brn/createBRN

Field	Data type	Mandatory	Description
brn	String	Yes	Business Registration number for Enatis
individualIdNumber	String	Yes	Proxy's id number. An individual with this id number should already be created.
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this brn will be linked to. An account with this reference already be created.

6. Create / Update Individual

Individual Request - API Link: /api/external/individuals/createIndividual

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this individual will be linked to. An account with this reference already be created.
idType	String	Yes	RSAID | Passport | TRN
idNumber	String	Yes	The individual identification number for the given IdType
driversLicenseImage	String	No	A base64 encoded string for the JPEG image of the individual driver's license.
firstname	String	Yes	The individual first name, as specified in the supplied ID
lastname	String	Yes	The individual last name, as specified in the supplied ID
initials	String	Yes	The individual's initials
driversLicenseNumber	String	No	The individual's driver license number
driversLicenseExpiryDate	DateTime	No	The individual's driver license expiry date

7. Create / Update Nomination Driver

Nomination Target Request - API Link: /api/external/nominations/CreateNominatedDriver or UpdateNominatedDriver

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this brn will be linked to. An account with this reference already be created.
personalDetails	NominationTargetPersonalDetails	Yes	Nomination Target personal details
addressDetails	NominationTargetAddressDetails	Yes	Nomination Target address details
documents	Array<NominationTargetDocument>	Yes	Nomination Target document (At least 1)

Nomination Target Personal Details

Field	Data type	Mandatory	Description
initials	String	Yes	Person Initials
fullName	String	Yes	Person Fullname
surname	String	Yes	Person Surname
idNumber	String	Yes	Person IdNumber / Passport
gender	String	Yes	Person Gender
idType	String	Yes	Person Id Type
countryOfIssue	String	Yes	Id document's country of issue
contactNumber	String	No	Person Contact Number

Field	Data type	Mandatory	Description
email	String	No	Person Email Address

Nomination Target Address Details

Field	Data type	Mandatory	Description
streetNo	String	Yes	Address street no
streetName	String	Yes	Address street name
suburb	String	No	Address suburb
city	String	Yes	Address city
postalCode	String	Yes	Address Postal code
country	String	Yes	Address country

Nomination Target Document

Field	Data type	Mandatory	Description
documentBase64String	String	Yes	Base 64 string of document
documentType	Int	Yes	Document type
expiryDate	DateTime	No	Expiry date of document

Id Types

Id	Description
1	South African ID
2	Foreign Id
3	Passport
4	Traffic Register Number
5	Driver's License

Document Types

Id	Description
1	Driver's License
2	Passport Document
3	South African ID
4	Foreign ID

8. **Create / Update Vehicle**

Vehicle Request - API Link: /api/external/vehicles/createVehicle or UpdateVehicle

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this vehicle will be linked to. An

			account with this reference already be created.
licenseNumber	String	Yes	The vehicle license plate number
vinNumber	String	Yes	Vehicle VIN number
vehicleRegisterNo	String	Yes	Veh. Register no on disk
engineNumber	String	No	The vehicle engine number
licenseDiscNumber	String	Yes	The license disc number as displayed on the license disc
licenseExpiryDate	DateTime	Yes	The expiry date as displayed on the license disc
departmentName	String	No	The department this vehicle will be linked to.
categoryId	Int32	Yes	A vehicle category. If incorrect, the quoted renewal will fail once instruction is issued to renewal network. See possible values below
descriptionId	Int32	No	A vehicle type description. If incorrect, the quoted renewal will fail once instruction is issued to renewal network. See possible values below (**Vehicle Descriptions**)
tare	Int32	Yes	The vehicle tare
make	String	No	The vehicle make
model	String	No	The vehicle model
colour	String	No	The vehicle colour
discImage	String	No	A base64 encoded string for the JPEG image of the current license disc.
brn	String	No	The business brn number. Only supplied if account is a business account. The brn should already be linked to the account.
individualIdNumber	String	No	The owner's identification number. Only supplied if account is a private account. The individual with the specified id number should already be linked to the account.

Vehicle Categories

Id	Description
1	Motorcycle/Motor tricycle/Motor quadracycle
2	Light passenger vehicle (less than 12 persons)
3	Heavy passenger vehicle (12 or more persons)
4	Light load vehicle (GVM 3 500 kg or less)
5	Heavy load vehicle (GVM > 3 500 kg, not to draw)
6	Special class vehicle

7	Heavy load vehicle (GVM > 3 500 kg, equipped to draw)
8	Tractor used on public roads
9	Breakdown vehicle

Vehicle Descriptions

Id	Description
1	Unknown
2	Motorcycle (no sidecar)
3	Motorcycle (with sidecar)
4	Scooter
5	Motor tricycle
6	Motor quadracycle
7	Beach buggy
8	Sedan (closed top)
9	Sedan (open top)
10	Coupe (closed top)
11	Coupe (open top)
12	Station wagon
13	Jeep
14	Hatch back
15	Combi/Micro/Minibus
16	Bus (single deck)
17	Bus (double deck)
18	Bendi bus / Bus-train
19	Pick-up
20	Panel Van
21	Box body
22	Van body
23	Flat deck / Platform
24	Dropside
25	Tipper
26	Compactor body
27	Elevating unit / Flat deck / Platform deck
28	Longer body
29	Sheet glass body
30	Mixer
31	Tanker
32	Truck tractor
33	Chassis-cab
34	Chassis
35	Skeletal
36	Adaptor dolly
37	Converter dolly
38	Vehicle carrier
39	Mesh side body
40	Caravan
41	Tractor
42	Breakdown
43	Fire engine

44	Ambulance
45	Rescue vehicle
46	Hearse
47	Grader
48	Compacto
49	Roller / Mobile facility
50	Loader-pump-lifter
51	Crane
52	Tarmac spreader
53	Digger
54	Backactor
55	Drill / Borer / Drain Cleaner
56	Generator
57	Compressor
58	Sweeper / Crop sprayer
59	Pipelaying
60	Harvester
61	Bailer / Mower
62	Planter
63	Hammer (crusher)
64	Minibus (10 to 15 persons)
65	Station wagon
66	Hears / Ambulance
67	Roadmarking
68	Earth moving
69	Excavation
70	Construction
71	Mass / Diesel cart farming
72	Utility vehicle
73	Agriculture machine
74	Mobile equipment

9. **Activate / Deactivate Vehicle**

Vehicle Request - API Link: /api/external/vehicles/activateVehicle or DeactivateVehicle

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this vehicle will be linked to. An account with this reference has already been created.
vehicleRegisterNo	String	Yes	Register number for the vehicle linked to this account.

10. **Link Nominated Driver to Vehicle**

Vehicle Request - API Link: /api/external/vehicles/activateVehicle

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this vehicle will be linked to. An account with this reference has already been created.
vehicleReference	String	Yes	A unique reference to vehicle this reference is link to an account.
nominatedDriverReference	String	Yes	A unique reference to the nominated driver is linked to an account.

11. **Create Dealer Stock License Instruction**

Dealer Stock Request - API Link: api/external/DealerStock/CreateDealerStockInstruction

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account this vehicle will be linked to. An account with this reference has already been created.
brnNumber	String	Yes	The business brn number.
vehicleRegisterNumber	String	Yes	Veh. Register number on disk.
preFilledNCODocumnet	String	Yes	Pre Filled NCO document as a base64 string with data as application/pdf.
vehiclePaidInFullLetterDocument	String	Yes	Vehicle paid in full letter as base64 string with data as application/pdf.

12. **Create Quote Request**

Create Quote Request - API Link:api/external/instructions/CreateQuote

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the account to which the quote will be linked to. An account with this reference has already been created.

paymentCallbackUrl	String	No	Specifies the URL to which the end-user should be redirected on payment result of the quote.
vehicleRegisterNumbers	Array<String>	Yes	Vehicle register numbers for pre-created vehicles linked to the specified account. These vehicles will be included in the quote.
Address	CreateQuoteRequestAddressDetails	Yes	The address to which the quote deliverables should eventually be couriered.

Create Quote Request Address Details

Field	Data type	Mandatory	Description
streetNumber	String	Yes	Address street no
streetName	String	Yes	Address street name
suburb	String	Yes	Address suburb
city	String	Yes	Address city
postalCode	String	Yes	Address Postal code
deliveryInstructions	String	No	Special instructions for the courier delivery
addressContacts	Array<AddressContact>	Yes	Address contact persons' details

Create Quote Request Address Contact Details

Field	Data type	Mandatory	Description
contactPerson	String	Yes	Name of the contact person
contactNumber	String	Yes	Contact number of the contact person
contactEmail	String	Yes	Email of the contact person

13. Create Quote Request Real-time

This differs from the normal Create Quote Request. A response is provided synchronously instead of asynchronously as with the normal request.

Create Quote Request Real-time - API Link:api/external/instructions/CreateQuoteRealtime

Field	Data type	Mandatory	Description
accountReference	String	Yes	A unique reference to the account to which the quote will be linked to. An account with this reference should already have been created.
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
vehicleRegisterNumbers	Array<String>	Yes	Vehicle register numbers for pre-created vehicles linked to the specified account. These vehicles will be included in the quote.

paymentCallbackUrl	String	No	Specifies the URL to which the end-user should be redirected on payment result of the quote.
Address	CreateQuoteRequestAddressDetails	Yes	The address to which the quote deliverables should eventually be couriered.

Create Quote Request Real-time Response

Create Quote Request Real-time Error Response Types

Message	Code
Property validations	0
Header tenant key is missing	10002
Header Tenant key is malformed	10003
Duplicate Request Reference	10004
Account not found	11004
Invalid courier address	11005
Vehicle not found	11003
Vehicle details incomplete	11006
Duplicate instruction already in progress	11007
Account documents incomplete	11008
Quote request invalid	11000

Create Quote Completed Real-time Response

Field	Data type	Description
success	Boolean	Indicates if the real-time quote response successfully retrieved a quote.
requestReference	String	Identifies the instruction
accountReference	String	The account for which the quote request was actioned.
quote	Create Quote Webhook Quote	The quote details

14. Upload Account Documents Request

Upload Account Documents Request - API Link:api/external/documents/UploadDocuments

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3rd party.
accountReference	String	Yes	A unique reference to the the documents should be linked to. An account with this reference should already be created.
documents	Array<UploadDocumentsRequestItem>	Yes	Document details

Upload Account Documents Request Item

Field	Data type	Mandatory	Description
document	String	Yes	The document as a base64 encoded string, must be prefixed with base64 header: eg. 'data:application/pdf;base64,'
documentType	Int	Yes	Document type
expiryDate	DateTime	No	Expiry date of document
expires	Boolean	Yes	Indicates if the document expires
ownerType	Int	Yes	Identifies the type of the document owner as BRN, Account or Individual
documentOwnerIdentification	String	Yes	Identifies the document owner BRN, Account or Individual, which should already exist on the account. BR Number for BRN Account reference for account ID number for individual

Document Owner Types

Id	Description
1	Account
2	Individual
12	BRN

Document Types

Id	Description
1	South African ID
2	Passport Document
3	Proof of Residence
4	Drivers License
6	Company Registration Document
7	Proof of Address
12	Proxy Authorization Letter
14	BRN Certificate

Setting up an endpoint for the webhook

Once the IOX Core application has processed your instruction an instruction response will be posted to the endpoint you configured.

Post to the Setup endpoint URL (../api/ endpoint/SetupEndpoint)

Ensure the header has the following entries:

Content-Type: application/json
api-version: 1.0

Authorization: "Bearer" + access_token
Tenant: tenantId

The body should contain an **url** and **sharedkey**. An endpoint will be configured, and the shared key will be returned in the response object. You will use this shared key in the endpoint HMAC Authentication explained below.

HMAC authentication is used in the webhook process to verify that a request is coming from the IOX API and that the request has not been tampered with in transit. This is achieved by including a HMAC hash and Nonce in the request's header.

Headers:

Nonce: "8256019327"
HMAC: "3a9805afa6ec3850b80273c61a06a11702c38b868cc986e8d981b4a63d2356f2"

The sharedkey used to configure the endpoint will be used in the HMAC generation process. Append the Nonce at the end of the payload body, generate a new HMACSHA256 hash using the shared key, if the generated HMAC matches the HMAC in the header the request has not been tampered with. (Look at the iox_sample_app/SignatureVerifier.cs to see a working example of this process)

Receiving webhook requests locally:

1. Download ngrok (https://ngrok.com/download)
2. Run ngrok.exe
3. In the command line window run ngrok http **PORT_YOUR_APPLICATION_IS_LISTENING_ON** (This port will be exposed by ngrok).
4. Use the URL and append "endpoint/response" to the ngrok URL. (e.g. https://66fcf8608ec6.ngrok.io/endpoint/response)
5. Follow the steps mentioned above (**Setting up an endpoint for the webhook**) and use the new ngrok URL.

You will now be able to receive instructions from the IOX API in your local environment.

Automated webhooks:

Each webhook object has the structure outlined in the table below:

Response Object

Field	Data type	Description
requestReference	String	Identifies the instruction
responseType	int	Identifies the type of the payload
status	String	Either "Success" or "Failed"
result	Object	The payload

errors	Array<ResponseObjectError>	Array containing error descriptions. Will be empty or null if no errors are present.

ResponseObjectError

Field	Data type	Description
code	Int	Error code identifier
message	String	Error message
details	String	Additional error details
severity	String	Describes the error severity as "Error" or "Warning
severityId	Int	Identifier for the severity

Instruction Error Types

Type	Code	Description
DUPLICATE_ID_NUMBER	11000	Id number already registered to another account.
INVALID_ID_NUMBER_PROVIDED	11001	Invalid id number provided
INVALID_ACCOUNT_REFERENCE_PROVIDED	11002	Invalid account reference provided
VEHICLE_NOT_FOUND	11003	Vehicle not found
ACCOUNT_NOT_FOUND	11004	Account not found
COURIER_ADDRESS_INVALID	11005	Courier address invalid
VEHICLE_DETAILS_INCOMPLETE	11006	Vehicle details incomplete
DUPLICATE_INSTRUCTION_IN_PROGRESS	11007	Duplicate instruction already in progress
ACCOUNT_DOCUMENTS_INCOMPLETE	11008	Account documents incomplete
QUOTE_REQUEST_INVALID	11009	Quote request invalid
INVALID_REQUEST	11010	Invalid request
UNKNOWN	0	Can be try-catch error or non ambiguous error message.

Instruction Error Severity

Type	Code	Description
Error	0	Error
Warning	1	Warning

1. **Account new fine count webhook**

Every day at 2am an automated webhook request will POST a ResponseObject with a result of type NewFineCountResponse to your configured endpoint.

New Fine Count Response

Field	Data type	Description
accountRef	String	A unique reference to an existing account.

newFineCount	Int32	Count of all new fines in a 24-hour period.

2. **Request Account OTP Instruction**

Request Account OTP Error Response Types

Message	Code
Property validations	0
Header tenant key is missing	10002
Header Tenant key is malformed	10003
Duplicate Request Reference	10004
Account not found	11004
Invalid request	11000

Request Account OTP Webhook Response

Field	Data type	Description
otp	String	One time password
accountReference	String	
validUntil	String	OTP expiry date in ISO format

3. **Create Dealer Stock License Instruction**

Dealer Stock Error Response

Message	Code
Duplicate request id	0
The Vehicle was not found	0
Multiple Vehicles with the same registration number ({vehicleRegisterNumber}) were found.	0
The vehicle is disabled	0
The BRN ({brnNumber}) is not linked to the specified vehicle ({vehicleRegisterNumber})	0
The BRN ({brnNumber}) does not have a linked proxy individual	0
The BRN ({brnNumber}) is not allocated to a Province	0
The required BRN ({brnNumber}) documents have not been uploaded	0
The required Company documents for account {accountReference} have not been uploaded	0
The owner account has not been configured for dealer stock instructions	0
A Dealer stock instruction for the vehicle is already being processed	0

Dealer Stock Status Update Response

Progress %	Status Id	Status Name	Additional Details
0	2	InstructionFailed	InstructionFailedDetails
30	0	InstructionCreated	InstructionCreatedDetails
50	1	AgentAcceptedInstruction	AgentAcceptedInstructionDetails

80	3	InstructionCompleted	InstructionCompletedDetails
90	4	InstructionSubmittedForCourier	InstructionCourierDetails
90	5	InstructionCourierCollected	N/A
95	7	InstructionCourierInTransit	InstructionCourierDetails
100	6	InstructionCourierDelivered	InstructionCourierDetails

Dealer Stock Instructions To Licensing Error Response

Message	Code
The dealer stock instruction is linked to a private account or the owning BR Number has not been configured, which is not allowed	0
Could not create dealer stock instruction: {ReasonPhrase}	0
And try-catch error messages	0

Dealer Stock Completed Error Response

Message	Code
Unable to complete dealer stock: {Exception}	0

4. **Upload Account Documents Request**

Upload Account Documents Error Response Types

Message	Code
Property validations	0
Header tenant key is missing	10002
Header Tenant key is malformed	10003
Duplicate Request Reference	10004
Account not found	11004
Invalid request	11000

Upload Account Documents Completed Webhook Response

Field	Data type	Description
requestReference	String	Identifies the instruction
accountReference	String	The account for which the documents upload request was actioned.
documentItems	Array<DocumentsUploadCompletedDocItem>	Document details

Upload Account Documents Completed Webhook Response Doc Item

Field	Data type	Description
documentType	Int	Document type identifier

documentTypeName	String	Document Type
ownerType	Int	Document owner type ID
ownerTypeName	String	Document owner type
ownerReference	String	Document owner reference identifier
documentOwnerIdentification	String	Identifies the document owner BRN, Account or Individual, which should already exist on the account. BR Number for BRN Account reference for account ID number for individual
expires	Boolean	Indicates if the document expires
expiryDate	Date	Expiry date
success	Boolean	Indicates if the document item upload was successful
errorMessage	String	Describes the document item upload error, if any.

5. **Create Quote Request Response Webhook**

Create Quote Request Error Response Types

Message	Code
Property validations	0
Header tenant key is missing	10002
Header Tenant key is malformed	10003
Duplicate Request Reference	10004
Account not found	11004
Invalid courier address	11005
Vehicle not found	11003
Vehicle details incomplete	11006
Duplicate instruction already in progress	11007
Account documents incomplete	11008
Quote request invalid	11000

Create Quote Completed Webhook Response

Field	Data type	Description
requestReference	String	Identifies the instruction
accountReference	String	The account for which the quote request was actioned.
result	Create Quote Webhook Quote	The quote details

Create Quote Webhook Quote

Field	Data type	Description

reference	String	Quote reference
serviceFee	Int	Service fee x 100
serviceFeeVat	Int	Service fee VAT x 100
vatExemptAmount	Int	VAT exempt amount x 100
expiresAt	string	
items	Array<QuoteItem>	Quote items
fines	Array<FineItem>	Fine items details
licensingItems	Array<LicensingItem>	Licensing items details
paymentUrl	String	Direct end-users to this URL to capture quote payment

Create Quote Webhook Quote Quote Item

Field	Data type	Description
reference	String	Quote item reference
serviceFee	Int	Service fee x 100
serviceFeeVat	Int	Service fee VAT x 100
vatExemptAmount	Int	VAT exempt amount x 100
description	String	

Create Quote Webhook Quote Fine Item

Field	Data type	Description
reference	String	Fine item reference
noticeNumber	String	Notice number
fineAmount	Int	Fine amount x 100
status	String	Fines Status
location	String	Location
offenceDate	String	Date of fine
chargeCode	String	
vehicleLicensePlate	String	

Create Quote Webhook Quote Licensing Item

Field	Data type	Description
vehicleRegisterNumber	String	Vehicle register number for the vehicle to which amounts pertain
vehicleLicenseNumber	String	Vehicle license number for the vehicle to which amounts pertain
description	String	
debtPayable	Boolean	Indicates if debts are payable
localAuthorityFee	Int	Local authority fee x 100
transactionFee	Int	Transaction Fee x 100
arrearsFee	Int	Arrears Fee x 100
penaltyFee	Int	Penalty Fee x 100

6. **Quote Paid Response Webhook**

Quote Paid Webhook Response

Field	Data type	Description
quoteReference	String	Identifies the quote for which payment was received
accountReference	String	Identifies the account

7. **Licensing Instruction Update**

Licensing instruction updates have the following structure:

LicensingInstructionUpdate

Field	Data type	Description
progress	Int	Progress percentage
statusId	Int	Instruction Status Id
statusName	String	Instruction status
additionalDetails	Object	Payload with any of the below formats, based on the statusId

Progress %	Status Id	Status Name	Additional Details
0	2	InstructionFailed	InstructionFailedDetails
30	0	InstructionCreated	InstructionCreatedDetails
50	1	AgentAcceptedInstruction	AgentAcceptedInstructionDetails
80	3	InstructionCompleted	InstructionCompletedDetails
90	4	InstructionSubmittedForCourier	InstructionCourierDetails
90	5	InstructionCourierCollected	N/A
95	7	InstructionCourierInTransit	InstructionCourierDetails
100	6	InstructionCourierDelivered	InstructionCourierDetails

InstructionFailedDetails

Field	Data type	Description
failureReason	String	Quoted fees incorrect, outstanding fines, incorrect documentation, incorrect quote amounts
cancelled	Boolean	Indicates if the instruction was cancelled which will result in an administration penalty
requestReference	String	The reference to the instruction
vehicleRegisterNumber	String	Vehicle register number for the vehicle included in the instruction
vehicleLicenseNumber	String	Vehicle license number for the vehicle included in the instruction

Instruction Created Details

Field	Data type	Description
requestReference	String	The reference to the instruction
vehicleRegisterNumber	String	Vehicle register number for the vehicle included in the instruction
vehicleLicenseNumber	String	Vehicle license number for the vehicle included in the instruction

Instruction Accepted Details

Field	Data type	Description
requestReference	String	The reference to the instruction
vehicleRegisterNumber	String	Vehicle register number for the vehicle included in the instruction
vehicleLicenseNumber	String	Vehicle license number for the vehicle included in the instruction

Instruction Completed Details

Field	Data type	Description
requestReference	String	The reference to the instruction
vehicleRegisterNumber	String	Vehicle register number for the vehicle included in the instruction
vehicleLicenseNumber	String	Vehicle license number for the vehicle included in the instruction
estimatedDeliveryDate	String	yyyy-MM-dd HH:mm:ss
newLicenseDiscNo	String	New vehicle license disc number
licenseExpiryDate	String	New vehicle licese expiry
licenseNo	String	License number for the vehicle license
reprintRequired	Boolean	Whether a reprint is required for the license instruction
reprintReason	String	Reason for reprint required, if any
reprintIncludedAdditionally	Boolean	Indicates if a reprint was issued along with the normal license renewal

Instruction Courier Details

Field	Data type	Description
requestReference	String	The reference to the instruction
vehicleRegisterNumber	String	Vehicle register number for the vehicle included in the instruction
vehicleLicenseNumber	String	Vehicle license number for the vehicle included in the instruction
estimatedDeliveryDate	String	Estimated date of delivery

waybillTrackingNo	String		Tracking number for the courier waybill
courierCompany	String		Name of the courier company
trackingUri	String		URI to track the waybill
deliveryBatchReference	String		Reference for the delivery batch in which instruction is couriered
trackingEvents	Array<InstructionCourierDetailsTrackingEvent>		Tracking events for the courier operation

Instruction Courier Details Tracking Event

Field	Data type	Description
timestamp	DateTime	Timestamp
trackingEvent	String	Description of the tracking event