# **IOX API**

# **Integration Document**

v1.0.0

2021-06-25

**Pieter Theron** 

pieter@ioxfleet.co.za

# Contents

٩PI	Specification:	5
Req	uesting your token:	<del>6</del>
Call	the API	<del>6</del>
os	sible API calls	7
1	. Create Account - This request creates a new account	7
	Create Account Request	7
	BRN	7
	Vehicle	8
	Individual:	<u>c</u>
	Department	9
2		
u	sers	
	AccountInviteTokenRequest	
	AccountInvite	
3		
	AccountOTPRequest	
4	and the control of th	
	DepartmentRequest	
5	<i>,</i> ,	
	BRNRequest	
6		
_	Individual Request	
7		
	Nomination Target Request	
	Nomination Target Personal Details	
	Nomination Target Address Details	
	Nomination Target Document	
	Id Types	
^	Document Types	
8	<i>,</i> ,	
	Vehicle Request	
	Vehicle Categories	13

	Vehicle Descriptions	14
g	9. Activate / Deactivate Vehicle	15
	Vehicle Request	15
1	10. Link Nominated Driver to Vehicle	16
	Vehicle Request	16
1	11. Create Dealer Stock License Instruction	16
	Dealer Stock Request	16
1	12. Create Quote Request	16
	Create Quote Request	16
	Create Quote Request Address Details	17
	Create Quote Request Address Contact Details	17
1	13. Upload Account Documents Request	17
	Upload Account Documents Request	17
	Upload Account Documents Request Item	17
	Document Owner Types	18
	Document Types	18
Set	tting up an endpoint for the webhook	18
Aut	itomated webhooks:	19
	Instruction Error Types	19
1	1. Account new fine count webhook	19
	New Fine Count Response	20
2	2. Request Account OTP Instruction	20
	Request Account OTP Error Response Types	20
	Request Account OTP Webhook Response	20
3	3. Create Dealer Stock License Instruction	20
	Dealer Stock Error Response	20
	Dealer Stock Status Update Response	20
	Dealer Stock Instructions To Licensing Error Response	21
	Dealer Stock Completed Error Response	21
4	4. Upload Account Documents Request	21
	Upload Account Documents Error Response Types	21
	Upload Account Documents Completed Webhook Response	21
	Upload Account Documents Completed Webhook Response Doc Item	22

5.	Create Quote Request Response Webhook	22
	Create Quote Request Error Response Types	22
	Create Quote Completed Webhook Response	22
	Create Quote Webhook Quote	23
	Create Quote Webhook Quote Quote Item	23
	Create Quote Webhook Quote Fine Item	23
	Create Quote Webhook Quote Licensing Item	23
6.	Licensing Instruction Update	24
	InstructionFailedDetails	24
	Instruction Created Details	24
	Instruction Accepted Details	24
	Instruction Completed Details	24
	Instruction Courier Details	25
	Instruction Courier Details Tracking Event	25

## **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"

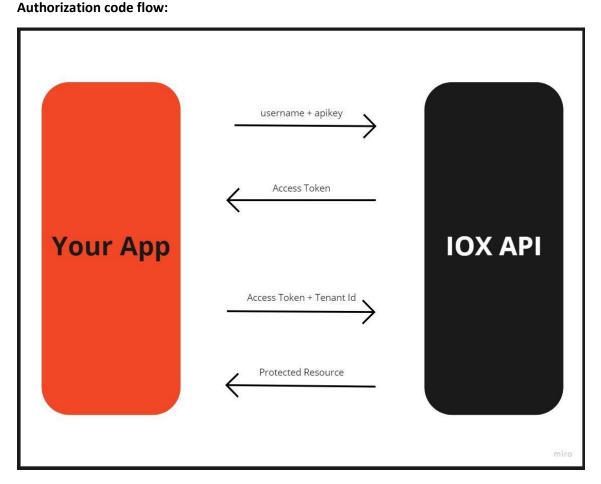
All requests are served from api/external/

#### 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



## 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></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 <b>AccountOTPResponse</b>

#### 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

Parameter	Data type	Mandatory	Description
referenceld	String	Yes	A unique reference to this account, internal to the 3 <sup>rd</sup> 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></brn>	No	A list of brns.
vehicles	Array <vehicle></vehicle>	No	A list of vehicles
individuals	Array <individual></individual>	Yes	A list of individuals
departments	Array <department></department>	No	A list of departments

#### BRN

Parameter	Data type	Mandatory	Description
brnNumber	String	Yes, if CreateAccountRequest's Business registration numb	
		isBusinessAccount is true and	Enatis
		brns array is not empty.	
individualIdNumber	String	Yes, if CreateAccountRequest's	Proxy's identification number
		isBusinessAccount is true and	
		brns array is not empty.	
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
categoryld	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	The business brn number
		isBusinessAccount	
		is true and	
		account's vehicles	
		array is not empty.	
		This brn should	
		also be listed in	
		account's brn	
		array.	
individualIdNumber	String	Only If account's	The owner's identification number
		isBussinessAccount	
		is false and	
		account's vehicle	
		array is not empty.	
		This id number	
		should also be	
		listed in account's	
		individual array.	

#### Individual:

Field	Data type	Mandatory	Description
idType	String	Yes	RSAID   Passport   TRN
idNumber	String	Yes	The individual identification number for the
			given IdType
driversLicenselmage	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	Department name
		empty.	

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

#### Account In vite Token Request

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 3 <sup>rd</sup> party.
accountInvites	Array <accountinvite></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

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

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

## DepartmentRequest

Field	Data type	Mandatory	Description
name	String	Yes	Department name
referenceId	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> 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

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.	
referenceld	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> 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

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal
			to the 3 <sup>rd</sup> 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
driversLicenselmage	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

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> 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></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
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

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> 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.
categoryld	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 (closed top)  Sedan (open top)
10	Coupe (closed top)
11	Coupe (open top)
12	
13	Station wagon
14	Jeep Hatch back
15	Combi/Micro/Minibus
16	
17	Bus (single deck) Bus (double deck)
18	Bendi bus / Bus-train
19	Pick-up
20	Panel Van
21	Box body Vera leader
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

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> 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

Field	Data type	Mandatory	Description
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

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this
			instruction, internal to the 3 <sup>rd</sup> 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

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> 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.

vehicleRegisterNumbers	Array <string></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></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. Upload Account Documents Request

## Upload Account Documents Request

Field	Data type	Mandatory	Description
referenceId	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> 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></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 (<a href="https://ngrok.com/download">https://ngrok.com/download</a>)
- 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. <a href="https://66fcf8608ec6.ngrok.io/endpoint/response">https://66fcf8608ec6.ngrok.io/endpoint/response</a>)
- 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:

#### Instruction Error Types

Туре	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
UNKNOWN	0	Can be try-catch error or non ambiguous
		error message.

#### 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	0
been configured, which is not allowed	
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	
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></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	
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	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 <quoteltem></quoteltem>	Quote items
fines	Array <fineitem></fineitem>	Fine items details
licensingItems	Array <licensingitem></licensingitem>	Licensing items details

#### 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. Licensing Instruction Update

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></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