

# IOX API

## Integration Document

v1.0.1

2021-07-15

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## 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/

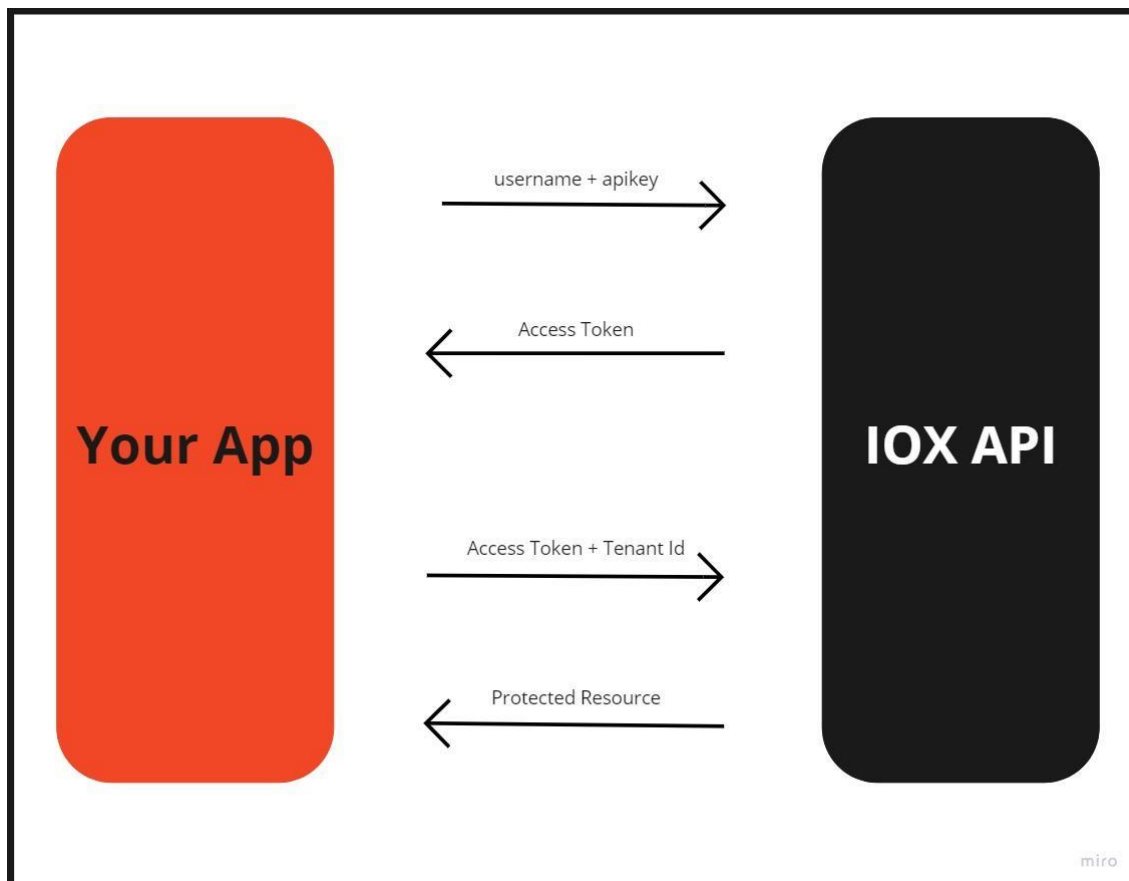
### Link to C# Sample application:

[https://github.com/iox-consulting/api\\_sample\\_app](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 <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
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## Possible API calls

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

#### Create Account Request

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

#### BRN

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

## Vehicle

Field	Data type	Mandatory	Description
<b>licenseNumber</b>	String	Yes	The vehicle license plate number
<b>vinNumber</b>	String	Yes	Vehicle VIN number
<b>vehicleRegisterNo</b>	String	Yes	Veh. Register no on disk
<b>engineNumber</b>	String	No	The vehicle engine number
<b>licenseDiscNumber</b>	String	Yes	The license disc number as displayed on the license disc
<b>licenseExpiryDate</b>	DateTime	Yes	The expiry date as displayed on the license disc
<b>categoryId</b>	Int32	Yes	A vehicle category. If incorrect, the quoted renewal will fail once instruction is issued to renewal network. See possible values below ( <b>Vehicle Categories</b> )
<b>descriptionId</b>	Int32	No	A vehicle type description. If incorrect, the quoted renewal will fail once instruction is issued to renewal network. See possible values below ( <b>Vehicle Descriptions</b> )
<b>tare</b>	Int32	Yes	The vehicle tare
<b>make</b>	String	No	The vehicle make
<b>model</b>	String	No	The vehicle model
<b>colour</b>	String	No	The vehicle colour
<b>departmentName</b>	String	No	Department name this vehicle will be linked to.
<b>discImage</b>	String	No	A base64 encoded string for the JPEG image of the current license disc.
<b>Brn</b>	String	Only if account's <b>isBusinessAccount</b> 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
<b>individualIdNumber</b>	String	Only If account's <b>isBusinessAccount</b> 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
<b>idType</b>	String	Yes	RSAID   Passport   TRN
<b>idNumber</b>	String	Yes	The individual identification number for the given IdType
<b>driversLicenseImage</b>	String	No	A base64 encoded string for the JPEG image of the individual driver's license.
<b>firstname</b>	String	Yes	The individual first name, as specified in the supplied ID
<b>lastname</b>	String	Yes	The individual last name, as specified in the supplied ID
<b>initials</b>	String	Yes	The individual's initials
<b>driversLicenseNumber</b>	String	No	The individual's driver license number
<b>driversLicenseExpiryDate</b>	DateTime	No	The individual's driver license expiry date

*Department*

Parameter	Data type	Mandatory	Description
<b>name</b>	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*

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

*AccountInvite*

Field	Data type	Mandatory	Description
<b>firstName</b>	String	Yes	First name of person to receive invite token.
<b>lastName</b>	String	Yes	Last name of person to receive invite token.
<b>email</b>	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
<b>referenceId</b>	String	Yes	A unique reference to this instruction.
<b>accountReference</b>	String	Yes	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
<b>name</b>	String	Yes	Department name
<b>referenceId</b>	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> party.
<b>accountReference</b>	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
<b>brn</b>	String	Yes	Business Registration number for Enatis
<b>individualIdNumber</b>	String	Yes	Proxy's id number. An individual with this id number should already be created.
<b>referenceId</b>	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> party.
<b>accountReference</b>	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
<b>referenceId</b>	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> party.
<b>accountReference</b>	String	Yes	A unique reference to the account this individual will be linked to. An account with this reference already be created.
<b>idType</b>	String	Yes	RSAID   Passport   TRN
<b>idNumber</b>	String	Yes	The individual identification number for the given IdType
<b>driversLicenseImage</b>	String	No	A base64 encoded string for the JPEG image of the individual driver's license.
<b>firstname</b>	String	Yes	The individual first name, as specified in the supplied ID
<b>lastname</b>	String	Yes	The individual last name, as specified in the supplied ID
<b>initials</b>	String	Yes	The individual's initials
<b>driversLicenseNumber</b>	String	No	The individual's driver license number
<b>driversLicenseExpiryDate</b>	DateTime	No	The individual's driver license expiry date

## 7. Create / Update Nomination Driver

### Nomination Target Request

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

### Nomination Target Personal Details

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

### *Nomination Target Address Details*

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

### *Nomination Target Document*

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

### *Id Types*

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

### *Document Types*

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

## **8. Create / Update Vehicle**

### *Vehicle Request*

Field	Data type	Mandatory	Description
<b>referenceId</b>	String	Yes	A unique reference to this instruction, internal to the 3 <sup>rd</sup> party.
<b>accountReference</b>	String	Yes	A unique reference to the account this vehicle will be linked to. An account with this reference already be created.

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

<b>Id</b>	<b>Description</b>
<b>1</b>	Motorcycle/Motor tricycle/Motor quadracycle
<b>2</b>	Light passenger vehicle (less than 12 persons)
<b>3</b>	Heavy passenger vehicle (12 or more persons)
<b>4</b>	Light load vehicle (GVM 3 500 kg or less)
<b>5</b>	Heavy load vehicle (GVM > 3 500 kg, not to draw)
<b>6</b>	Special class vehicle
<b>7</b>	Heavy load vehicle (GVM > 3 500 kg, equipped to draw)
<b>8</b>	Tractor used on public roads

9	Breakdown vehicle
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### *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*

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

## 10. Link Nominated Driver to Vehicle

### *Vehicle Request*

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



<b>vehicleRegisterNumbers</b>	Array<String>	Yes	Vehicle register numbers for pre-created vehicles linked to the specified account. These vehicles will be included in the quote.
<b>Address</b>	CreateQuoteRequestAddressDetails	Yes	The address to which the quote deliverables should eventually be couriered.

#### *Create Quote Request Address Details*

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

#### *Create Quote Request Address Contact Details*

Field	Data type	Mandatory	Description
<b>contactPerson</b>	String	Yes	Name of the contact person
<b>contactNumber</b>	String	Yes	Contact number of the contact person
<b>contactEmail</b>	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*

Field	Data type	Mandatory	Description
<b>accountReference</b>	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.
<b>vehicleRegisterNumbers</b>	Array<String>	Yes	Vehicle register numbers for pre-created vehicles linked to the specified account. These vehicles will be included in the quote.
<b>Address</b>	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
<b>success</b>	Boolean	Indicates if the real-time quote response successfully retrieved a quote.
<b>accountReference</b>	String	The account for which the quote request was actioned.
<b>quote</b>	Create Quote Webhook Quote	The quote details

## 14. Upload Account Documents Request

#### Upload Account Documents Request

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

#### Upload Account Documents Request Item

Field	Data type	Mandatory	Description
<b>document</b>	String	Yes	The document as a base64 encoded string, must be prefixed with base64 header: eg. 'data:application/pdf;base64,'
<b>documentType</b>	Int	Yes	Document type
<b>expiryDate</b>	DateTime	No	Expiry date of document
<b>expires</b>	Boolean	Yes	Indicates if the document expires

<b>ownerType</b>	Int	Yes	Identifies the type of the document owner as BRN, Account or Individual
<b>documentOwnerIdentification</b>	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
<b>1</b>	Account
<b>2</b>	Individual
<b>12</b>	BRN

### *Document Types*

Id	Description
<b>1</b>	South African ID
<b>2</b>	Passport Document
<b>3</b>	Proof of Residence
<b>4</b>	Drivers License
<b>6</b>	Company Registration Document
<b>7</b>	Proof of Address
<b>12</b>	Proxy Authorization Letter
<b>14</b>	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:

### *Instruction Error Types*

Type	Code	Description
<b>DUPLICATE_ID_NUMBER</b>	11000	Id number already registered to another account.
<b>INVALID_ID_NUMBER_PROVIDED</b>	11001	Invalid id number provided
<b>INVALID_ACCOUNT_REFERENCE_PROVIDED</b>	11002	Invalid account reference provided
<b>UNKNOWN</b>	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
<b>accountRef</b>	String	A unique reference to an existing account.
<b>newFineCount</b>	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
<b>otp</b>	String	One time password
<b>accountReference</b>	String	
<b>validUntil</b>	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
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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
<b>requestReference</b>	String	Identifies the instruction
<b>accountReference</b>	String	The account for which the documents upload request was actioned.
<b>documentItems</b>	Array<DocumentsUploadCompletedDocItem>	Document details

### Upload Account Documents Completed Webhook Response Doc Item

Field	Data type	Description
<b>documentType</b>	Int	Document type identifier
<b>documentTypeName</b>	String	Document Type
<b>ownerType</b>	Int	Document owner type ID
<b>ownerTypeName</b>	String	Document owner type
<b>ownerReference</b>	String	Document owner reference identifier
<b>documentOwnerIdentification</b>	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
<b>expires</b>	Boolean	Indicates if the document expires
<b>expiryDate</b>	Date	Expiry date
<b>success</b>	Boolean	Indicates if the document item upload was successful
<b>errorMessage</b>	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
<b>requestReference</b>	String	Identifies the instruction
<b>accountReference</b>	String	The account for which the quote request was actioned.
<b>result</b>	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
finest	Array<FineItem>	Fine items details
licensingItems	Array<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
<b>failureReason</b>	String	Quoted fees incorrect, outstanding fines, incorrect documentation, incorrect quote amounts
<b>cancelled</b>	Boolean	Indicates if the instruction was cancelled which will result in an administration penalty
<b>requestReference</b>	String	The reference to the instruction
<b>vehicleRegisterNumber</b>	String	Vehicle register number for the vehicle included in the instruction
<b>vehicleLicenseNumber</b>	String	Vehicle license number for the vehicle included in the instruction

### *Instruction Created Details*

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

### *Instruction Accepted Details*

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

### *Instruction Completed Details*

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

#### *Instruction Courier Details*

Field	Data type	Description
<b>requestReference</b>	String	The reference to the instruction
<b>vehicleRegisterNumber</b>	String	Vehicle register number for the vehicle included in the instruction
<b>vehicleLicenseNumber</b>	String	Vehicle license number for the vehicle included in the instruction
<b>estimatedDeliveryDate</b>	String	Estimated date of delivery
<b>waybillTrackingNo</b>	String	Tracking number for the courier waybill
<b>courierCompany</b>	String	Name of the courier company
<b>trackingUri</b>	String	URI to track the waybill
<b>deliveryBatchReference</b>	String	Reference for the delivery batch in which instruction is couriered
<b>trackingEvents</b>	Array<InstructionCourierDetailsTrackingEvent>	Tracking events for the courier operation

#### *Instruction Courier Details Tracking Event*

Field	Data type	Description
<b>timestamp</b>	DateTime	Timestamp
<b>trackingEvent</b>	String	Description of the tracking event