

IOX API

Integration Document

v1.0.2

2021-07-27

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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/

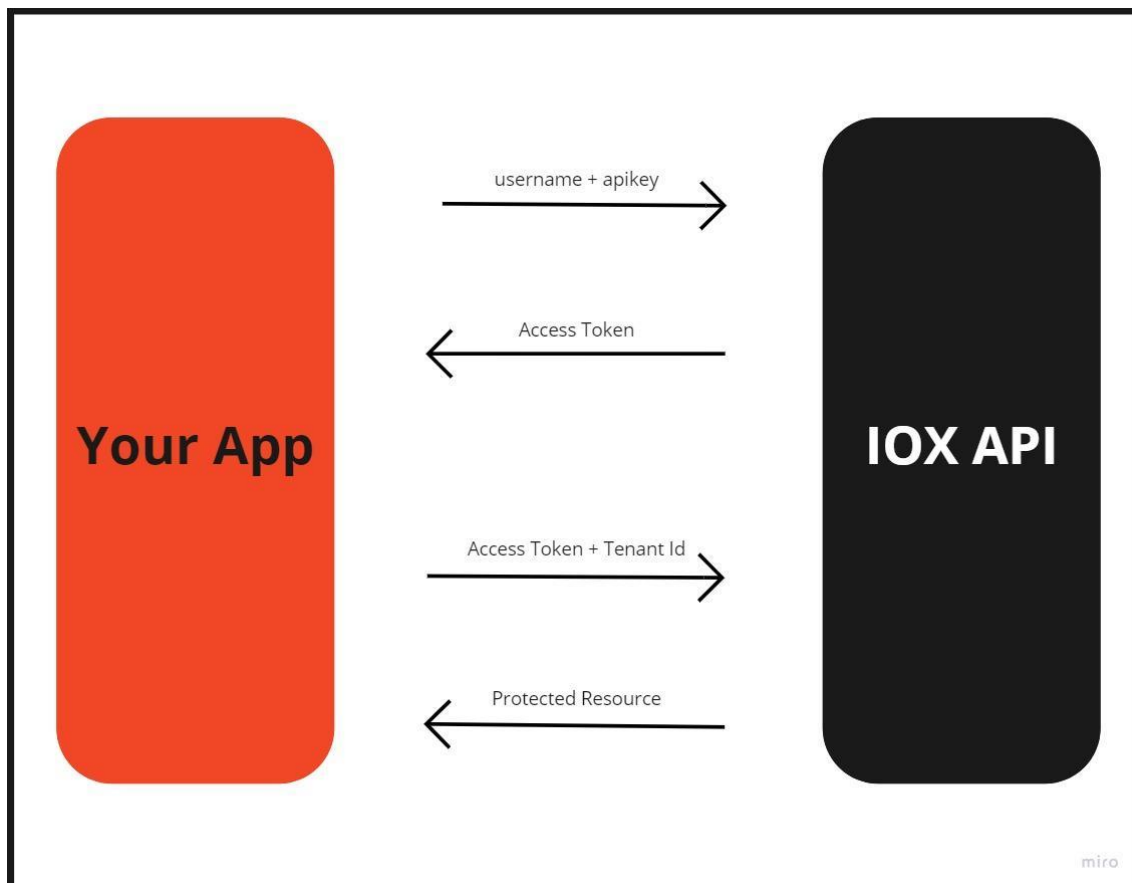
Link to C# Sample application:

https://github.com/iox-consulting/api_sample_app

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

| Parameter | Data type | Mandatory | Description |
|----------------------------------|-------------------|-----------------------------------|---|
| referenceId | String | Yes | A unique reference to this account, internal to the 3 rd 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. |
| disclImage | 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 isBusinessAccount 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 |
| driversLicenseExpiryDate | 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

| 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 rd 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

| 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 3 rd 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 rd 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. |
| referenceId | String | Yes | A unique reference to this instruction, internal to the 3 rd 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 rd 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

| Field | Data type | Mandatory | Description |
|-------------------------|---------------------------------|-----------|--|
| referenceId | String | Yes | A unique reference to this instruction, internal to the 3 rd 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 |
| 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 rd 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 |
| disclImage | 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

| Field | Data type | Mandatory | Description |
|--------------------------|-----------|-----------|--|
| referenceId | String | Yes | A unique reference to this instruction, internal to the 3 rd 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 rd 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 rd 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

| 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 3 rd 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

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

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 |

| | | |
|----------------|---|--|
| 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 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 |
| finer | 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 |
|-------------------------|-----------|---|
| requestReference | String | Identifies the instruction |
| accountReference | String | The account for which the quote request was actioned. |
| quoteReference | String | Identifies the quote for which payment was received |

7. 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 license 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 |