

Entities Application Program Interface (API)

The URL generally has the form `/api/<resource>/<action>`, which could either retrieve a result or perform some action.

When retrieving a result, the API expects a HTTP GET method, and when performing an action it expects a HTTP POST.

The resource `/api/entities` refer to all the entities in the database. To address a specific entity, use a URL of the form `/api/entities/{uniqueId}/<action>`.

Successful results are returned as HTTP 200 or 201 responses, with the body containing JSON data. Defined error responses will be in the HTTP 400 range, and undefined server errors in the HTTP 500 range.

Error responses contain the following JSON format:

```
{
  "errors" : [
    {
      "description" : "<error description>",
      "code" : "<error code>",
      "index" : <integer>
    }
  ]
}
```

where the error description is a detailed description of the error, and the error code is a short reference to the error.

Index is an optional error field and is present when the request data is an array of objects. It indicates the position of the offending object in the request array.

Supported API calls

1 Entity details	3
2 Update Entity details	8
3 Create person	11
4 Create company	15
5 Accounts for Entity	18
6 Documents for Entity	20
7 Persons	21
8 Companies	21
9 Document Types	22
10 Document Upload	23

1 Entity details

GET: `/api/entities/{unique_id}`

Example request:

`/api/entities/123456789012`

Example JSON response for a Person:

```
{
  "Identification document type": "Identity Document",
  "Addresses": [
    {
      "Line 1": "Unit 2",
      "Type": "Residential",
      "Country": "ZA",
      "Line 2": "17 Awkward Road",
      "City": "Gotham",
      "Code": "1234"
    }
  ],
  "Work Telephone": "+27128092343",
  "Occupation Industry": "Accountancy",
  "Email address": "jane@doe.com",
  "Work email address": "jane@workplace.com",
  "Source Of Funds": "Transfer from RFI",
  "Entity Relationships": [
    {
      "Relationship Type": "Spouse",
      "ID Number": "1234567890",
      "First Name": "Jane",
      "Surname": "Doe",
      "Entity Id": 916355584
    }
  ],
  "Cellphone": "+27128092343",
  "Employment Status": "Self-employed",
  "Bank Details": [
    {
      "Bank Name": "First National Bank",
      "International Bank Account Number": "GB82WEST12345698765432",
      "Holder Name": "John Doe",
      "Swift Bank Identifier Code": "777",
      "Intermediary Name": "NEDWXYZYYYY",
      "Type": "Current",
      "Currency Identifier": "ZAR",
      "Branch Code": "222626",
    }
  ]
}
```

```
"Account Number": "1234567890",
"Branch Name": "Centurion",
  "Address": {
    "Type": "Registered",
    "Line 1": "Unit 2",
    "Line 2": "17 Awkward Road",
    "Line 3": "Ghost Town",
    "City": "Gotham",
    "Code": "1234",
    "Country": "ZA"
  }
},
"Title": "",
"Home Telephone": "+27128092343",
"Tax Number": "P123405678",
"Type": "Person",
"Gender": "Female",
"Nationality": "ZA",
"Is USA Citizen": true,
"Country Of Birth": "ZA",
"City Of Birth": "Centurion",
"Client Number": "916355584",
"Date Of Birth": "1991-11-19",
"ID Number": "1234567890",
"Occupation": "Accountant",
"Country For Tax Purposes": "ZA",
"Unique Id": 916355584,
"First Name": "Jane",
"Total Annual Earnings": "<25000",
"Compliance Status": "Not compliant",
"Outstanding Requirements": "Finance & Tax - Proof of banking details",
"Is Tax Resident In Country For Tax Purposes": false,
"Documents": [
  {
    "Type": "Contribution Certificate",
    "Document Id": "/api/documents/930799104",
    "Label": "dokument een",
    "Document Unique Id": 930799104
  },
  {
```

```
"Type": "Application Form",
"Document Id": "/api/documents/608358912",
"Label": "dokument twee",
"Document Unique Id": 608358912
}
],
"Receives Income From USA": true,
"Surname": "Doe",
"Postal address same as residential address": true,
"Is Politically Exposed": false,
"Communication Options": {
  "communicationPreference": "None",
  "transactionNotificationPreferences": {
    "CompleteSwitchInstruction": "None",
    "SubmitUnitTransferOutInstruction": "None",
    "SubmitReinvestmentSwitchInstruction": "None",
    "SubmitSwitchInstruction": "None",
    "SubmitUnitTransferInInstruction": "None",
    "SubmitWithdrawal": "None",
    "CompleteReinvestmentSwitchInstruction": "None",
    "CompleteWithdrawal": "None",
    "CompleteUnitTransferOutInstruction": "Both",
    "ApprovedChangeRequest": "Email",
    "SuccessfulLogin": "Sms",
    "SubmitInvestment": "None",
    "CompleteInvestment": "None",
    "CompleteUnitTransferInInstruction": "None",
    "SendAutomaticStatement": "Email"
  }
}
}
```

Example request:

</api/entities/123456789013>

Example JSON response for a Company:

```
{
  "Work Telephone": "+27123457891",
  "Name": "ABC PRINTERS (PTY)LTD",
  "Entity Relationships": [
    {
      "Relationship Type": "Director",
      "ID Number": "8888",
```

```
"First Name": "John",
"Surname": "Doe",
"Entity Id": 223762944
},
{
  "Registration Number": "22/55555/06",
  "Entity Id": 896931840,
  "Relationship Type": "Shareholder",
  "Name": "Finstat"
}
],
"Client Number": "396803072",
"Home Telephone": "+27123457892",
"Email address": "abcprinters@mail.com",
"Work email address": "jane@workplace.com",
"Registration Number": "71/12707/07",
"Unique Id": 396803072,
"Cellphone": "+27123457890",
"Type": "Company",
"Is Tax Resident In Country For Tax Purposes": false,
"Tax Number": "1234/123/12/1",
"Documents": [],
"Addresses": [
  {
    "Line 1": "Unit 2",
    "Type": "Residential",
    "Country": "ZA",
    "Line 2": "17 Awkward Road",
    "City": "Gotham",
    "Code": "1234",
    "Line 3": "Ghost Town"
  }
],
"Bank Details": [
  {
    "Bank Name": "First National Bank",
    "International Bank Account Number": "GB82WEST12345698765432",
    "Holder Name": "John Doe",
    "Swift Bank Identifier Code": "777",
    "Intermediary Name": "NEDWXYZYYYY",
    "Type": "Current",
    "Currency Identifier": "ZAR",
    "Branch Code": "222626",
    "Account Number": "1234567890",
    "Branch Name": "Centurion",
    "Address": {
      "Type": "Registered",
      "Line 1": "Unit 2",
      "Line 2": "17 Awkward Road",
      "Line 3": "Ghost Town",
      "City": "Gotham",
      "Code": "1234",
      "Country": "ZA"
    }
  }
]
```

```
    }  
  }  
},  
  "Country For Tax Purposes": "ZA"  
}
```

Error examples:

HTTP response	Code	Description
404	IDNotFound	Could not find entity

2 Update Entity details

POST: /api/entities/update/{unique_id}

Example request:

/api/entities/update/123456789012

Example JSON request for person:

```
{
  "idNumber" : "1234567890",
  "identificationDocumentType": "Identity Document",
  "firstNames" : "Jane",
  "surname" : "Doe",
  "dateOfBirth" : "1991-11-19",
  "gender" : "Female",
  "email" : "jane@doe.com",
  "workEmail" : "jane@workplace.com",
  "taxNumber" : "P1234056",
  "cellPhoneNumber" : "+27128092343",
  "workPhoneNumber" : "+27128092343",
  "homePhoneNumber" : "+27128092343",
  "address" : {
    "line1" : "Unit 2",
    "line2" : "17 Awkward Road",
    "line3" : "",
    "city" : "Gotham",
    "code" : "1234",
    "country" : "ZA",
    "type" : "Residential"
  },
  "nationality": "ZA",
  "countryForTaxPurposes": "ZA",
  "isTaxResidentInCountryForTaxPurposes": true,
  "withholdingTaxExempt": true,
  "reasonForTaxExemptionCode": "Par (1)(a)",
  "isUSACitizen": false,
  "receivesIncomeFromUSA": false,
  "employmentStatus": "Self-employed",
  "occupation": "Accountant",
  "occupationIndustry": "Accountancy",
  "sourceOfFunds": "Transfer from RFI",
  "totalAnnualEarnings": "<25000",
  "bankDetails": {
    "verified": true,
    "holderName": "John Doe",
    "accountNumber": "1234567890",
    "branchCode": "222626",
    "type": "Current",
    "bankName": "First National Bank",
  }
}
```



```

    "branchName": "Centurion",
    "currencyIdentifier": "zar",
    "swiftBankIdentifierCode": "777",
    "intermediaryName": "NEDWXYZYYYY",
    "internationalBankAccountNumber": "GB82WEST12345698765432"},
    "communicationOptions": {
      "communicationPreference": "Email",
      "transactionNotificationPreferences": {
        "CompleteWithdrawal": "Email",
        "SuccessfulLogin": "Both"
      }
    },
  },
  "complianceRequirements" : {
    "Requirement name" : "Overall Compliant",
    "Is compliant" : false,
    "Outstanding" : true,
    "Reason" : "ID unclear"
  },

  "entityRelationships": [
    {
      "relationshipType": "Spouse",
      "idNumber": "8888",
      "firstNames": "John",
      "initials": "J",
      "surname": "Doe"
    }
  ],

```

Other example call on Update (Compliance Requirements)

example call on Update

```

{
  "firstNames" : "John",
  "idNumber" : "123",
  "surname" : "Doe",
  "initials" : "J",
  "complianceRequirements" : {
    "Requirement name" : "Not specified",
    "Is compliant" : true,
    "Outstanding" : false
  }
}

```

Notes:

The following restrictions apply:

- dateOfBirth: a valid date in various formats, preferably ISO format
- gender: Male or Female
- email: a valid email address
- address - type: Residential, Registered, Business or Postal
- address - country: a valid ISO country code (as set up in the system configuration)
- employmentStatus: Options - System - Risk Assessment Employment Status Type
- occupation: Options - System - Risk Assessment Occupation Type
- occupationIndustry: Options - System - Industries
- sourceOfFunds: Options - System - Risk Assessment Source Of Funds
- totalAnnualEarnings: Options - System - Risk Assessment Total Annual Earning
- withholdingTaxExempt: If set to true, a valid reasonForTaxExemptionCode must be provided
- reasonForTaxExemptionCode: Options - Country (This is the entity's country for tax purposes) - Reasons for tax exemption
- entityRelationships are also supported for updating. The behaviour is as follows.
 - If entityRelationships field is not present, no change to existing defined entityRelationships.
 - If entityRelationship field is present, then OVERWRITE existing relationships with the ones specified. Partial updating is not supported
 - Only new entities that don't exist on the system can be linked (and created) through this feature. The system will automatically create the entities as well.

Additional optional input fields:

- postalAddressSameAsResidentialAddress (default is false if not specified)
- businessAddressSameAsRegisteredAddress (default is false if not specified)

Example JSON response:

```
{"entityUpdated" : "1234567890"}
```

Error examples:

HTTP response	Code	Description
400	ExistingPersonWithID NumberFound	A person matching the idNumber already exists
400	MalformedRequest	Malformed request. Invalid JSON

Example JSON request for company:

[/api/entities/update/3456789](#)

Notes: See notes for [Create company](#)

Example JSON response:

```
{"entityUpdated" : "3456789"}
```

The following apply:

- entityRelationships are also supported for updating. The behaviour is as follows.
 - If entityRelationships field is not present, no change to existing defined entityRelationships.
 - If entityRelationship field is present, then OVERWRITE existing relationships with the ones specified. Partial updating is not supported

3 Create person

[POST:/api/entities/createPerson](#)

Example JSON request:

```
{
  "idNumber": "1234567890",
  "identificationDocumentType": "Identity Document",
  "firstNames": "Jane",
  "surname": "Doe",
  "initials": "J",
  "dateOfBirth": "1991-11-19",
  "gender": "Female",
  "email": "jane@doe.com",
  "taxNumber": "P123405678",
  "cellPhoneNumber": "+27128092343",
  "workPhoneNumber": "+27128092343",
  "homePhoneNumber": "+27128092343",
  "address": {
    "line1": "Unit 2",
    "line2": "17 Awkward Road",
    "line3": "",
    "city": "Gotham",
    "code": "1234",
    "country": "ZA",
    "type": "Residential"
  },
  "nationality": "ZA",
}
```

```
"countryForTaxPurposes": "ZA",
"isTaxResidentInCountryForTaxPurposes": false,
"isUSACitizen": true,
"receivesIncomeFromUSA": true,
"employmentStatus": "Self-employed",
"occupation": "Accountant",
"occupationIndustry": "Accountancy",
"sourceOfFunds": "Transfer from RFI",
"totalAnnualEarnings": "<25000",
"bankDetails": {
  "verified": true,
  "holderName": "John Doe",
  "accountNumber": "1234567890",
  "branchCode": "222626",
  "type": "Current",
  "bankName": "First National Bank",
  "branchName": "Centurion",
  "currencyIdentifier": "zar",
  "swiftBankIdentifierCode": "777",
  "intermediaryName": "NEDWXYZYYYY",
  "internationalBankAccountNumber": "GB82WEST12345698765432",
  "address": {
    "line1": "10 Church Street",
    "city": "Gotham",
    "code": "1234",
    "country": "ZA"
  }
},
"entityRelationships": [
  {
    "relationshipType": "Spouse",
    "idNumber": "8888",
    "firstNames": "John",
    "initials": "J",
    "surname": "Doe"
  }
],
"communicationOptions": {
  "communicationPreference": "Email",
  "transactionNotificationPreferences": {
    "CompleteWithdrawal": "Email",
    "SuccessfulLogin": "Both"
  }
},
}
```

Notes:

Mandatory fields are:

- idNumber
- firstNames
- surname
- initials (defaults to first letter of firstNames)

The following restrictions apply:

- dateOfBirth: a valid date in various formats, preferably ISO format
- gender: Male or Female
- email: a valid email address
- address - type: Residential, Registered, Business or Postal
- address - country: a valid ISO country code (as set up in the system configuration)
- countryOfBirth: a valid ISO country code (as set up in the system configuration)
- title: a valid title (as set up in the system configuration)
- entityRelationships - relationshipType: a valid Relationship type (as set up in system configuration)
- under communicationOptions, the following apply:
 - communicationPreference can be one of: 'Post' 'Email' 'No consent given' or 'Opted-out'
 - transactionNotificationPreferences is a list of types: SubmitInvestment, CompleteInvestment, SubmitWithdrawal, CompleteWithdrawal, SubmitSwitchInstruction, CompleteSwitchInstruction, SubmitUnitTransferInInstruction, CompleteUnitTransferInInstruction, SubmitUnitTransferOutInstruction, CompleteUnitTransferOutInstruction, SubmitReinvestmentSwitchInstruction, CompleteReinvestmentSwitchInstruction, ApprovedChangeRequest, SuccessfulLogin, SendAutomaticStatement - the preference can be one of 'Both' 'Email' 'SMS' or 'None' . By default, none are set

Optional fields with their defaults if not present:

- firstNames: blank
- surname: blank
- dateOfBirth: nil
- cityOfBirth: blank
- gender: blank
- email: blank
- workEmail: blank
- cellPhoneNumber: blank
- workPhoneNumber: blank
- homePhoneNumber: blank
- address:
 - city, line1, line2, line3, code: blank

- type: Residential
- country: default country set up in system configuration
- postalAddressSameAsResidentialAddress (default is false if not specified)
- businessAddressSameAsRegisteredAddress (default is false if not specified)
- taxNumber: blank
- withholdingTaxExempt: false
- reasonForTaxExemptionCode: None
- employmentStatus: Options - System - Risk Assessment Employment Status Type
- occupation: Options - System - Risk Assessment Occupation Type
- occupationIndustry: Options - System - Industries
- sourceOfFunds: Options - System - Risk Assessment Source Of Funds
- totalAnnualEarnings: Options - System - Risk Assessment Total Annual Earning
- bankDetails
- entityRelationships
- communicationOptions

Example JSON response:

```
{"Unique Id" : 123456}
```

Error examples:

HTTP response	Code	Description
400	ExistingPersonWithID NumberFound	A person matching the idNumber already exists
400	MalformedRequest	Malformed request. Field "idNumber" is compulsory
400	MalformedRequest	Malformed request. Invalid JSON
400	MalformedRequest	Invalid title \"Mrs\"

4 Create company

POST:/api/entities/createCompany

Example JSON request:

```
{
  "companyName": "ABC PRINTERS (PTY)LTD",
  "companyType": "Listed company",
  "registrationNumber": "71/12707/07",
  "registeredCountry": "ZA",
  "registrationDate": "1999-01-02",
  "email": "abcprinters@mail.com",
  "workEmail": "jane@workplace.com",
  "taxNumber": "1234/123/12/1",
  "isTaxResidentInCountryForTaxPurposes": false,
  "cellPhoneNumber": "+27123457890",
  "workPhoneNumber": "+27123457891",
  "homePhoneNumber": "+27123457892",
  "address": {
    "line1": "Unit 2",
    "line2": "17 Awkward Road",
    "line3": "Ghost Town",
    "city": "Gotham",
    "code": "1234",
    "country": "ZA",
    "type": "Residential"
  },
  "bankDetails": {
    "verified": true,
    "holderName": "John Doe",
    "accountNumber": "1234567890",
    "branchCode": "222626",
    "type": "Current",
    "bankName": "First National Bank",
    "branchName": "Centurion",
    "currencyIdentifier": "zar",
    "swiftBankIdentifierCode": "777",
    "intermediaryName": "NEDWXYZYYYY",
    "internationalBankAccountNumber": "GB82WEST12345698765432",
    "address": {
      "Line 1": "10 Church Street",
      "Type": "Registered",
      "Country": "ZA",
      "City": "Gotham",
      "Code": "1234"
    }
  }
},
```

```
"entityRelationships": [  
  {  
    "relationshipType": "Director",  
    "entityType": "Person",  
    "idNumber": "8888",  
    "firstNames": "John",  
    "initials": "J",  
    "surname": "Doe"  
  },  
  {  
    "relationshipType": "Shareholder",  
    "entityType": "Company",  
    "registrationNumber": "22/55555/06",  
    "companyName": "Finstat",  
    "companyType": "Listed company",  
    "registeredCountry": "ZA"  
  }  
]  
  
}
```

Example JSON response:

```
{"Unique Id" : 3456789}
```

Notes:

Mandatory fields are:

- companyName
- companyType
- registrationNumber

The following restrictions apply:

- companyType: the name of a valid Company type as set up in the system configuration
- entityRelationships - relationshipType: The following options are allowed: "Director", "Shareholder", "Trustee", "Protector" and "Settlor"
- entityType - can either be Person or Company, with the applicable required fields to create a new person or company, or just "idNumber" to use existing person, or "registrationNumber" to use existing company.

Optional fields with their defaults if not present:

- registeredCountry: default country set up in system configuration
- registrationDate: blank

- email: blank
- cellPhoneNumber: blank
- workPhoneNumber: blank
- homePhoneNumber: blank
- address:
 - city, line1, line2, line3, code: blank
 - type: Residential
 - country: default country set up in system configuration
- taxNumber: blank
- withholdingTaxExempt: If set to true, a valid reasonForTaxExemptionCode must be provided
- reasonForTaxExemptionCode: Options - Country (This is the entity's country for tax purposes) - Reasons for tax exemption
- bankDetails
- entityRelationships
- postalAddressSameAsRegisteredAddress (default is false)
- businessAddressSameAsRegisteredAddress (default is false)

Error examples:

HTTP response	Code	Description
400	ExistingCompanyWithRegistrationNumberFound	A company matching the registrationNumber already exists

5 Accounts for Entity

GET: /api/entities/{uniqueId}/accounts

Example request:

/api/entities/320188928/accounts

Example JSON response:

```
{
  "Identification number": "6611235090089",
  "Investment value": {
    "currency": "ZAR",
    "value": "300.00",
    "type": "Money"
  },
  "Contracts": [
    {
      "Account unique id": 338391552,
      "Market value": {
        "currency": "ZAR",
        "value": "100.00",
        "type": "Money"
      },
      "Description": "Discretionary",
      "Product": "Discretionary",
      "Account number": "POL3",
      "Contract number": "POL3",
      "Distribution Option": "leaveDistributionInCash",
      "Status": {
        "active": "true",
        "identifier": "New business"
      }
    },
    {
      "Market value": {
        "currency": "ZAR",
        "value": "200.00",
        "type": "Money"
      },
      "Description": "Retirement annuity",
      "Product": "Retirement annuity",
      "Account number": "POL4",
      "Status": {
        "active": "true",
        "identifier": "New business"
      }
    }
  ]
}
```

```
],  
  "Investor name": "Jane Doe"  
}
```

Error examples:

HTTP response	Code	Description
500	NotFound	Invalid uniqueId

6 Documents for Entity

GET: `/api/entities/{uniqueId}/documents`

Example request:

`/api/entities/320188928/documents`

Example JSON response:

```
{
  "data": [
    {
      "Document id": "/api/documents/1069908736",
      "Document Unique Id": 1069908736,
      "Type": "Id Proof",
      "Label": "dokument een",
      "Date": "2005/05/13"
    }
  ],
  "size": 1
}
```

Error examples:

HTTP response	Code	Description
500	NotFound	Invalid uniqueId

7 Persons

GET: [/api/entities/persons](#)

Example JSON response:

```
{
  "Entity id" : 123456789012,
  "Surname" : "Ivan",
  "First Name" : "Liliana",
  "Title" : "Ms",
  "Initials" : "LM",
  "ID Number" : "6611235090089",
  "Email" : "liliana@nowhere.com",
  "Compliance Requirements": "None"
}
```

8 Companies

GET: [/api/entities/companies](#)

Example JSON response:

```
{
  "Entity id" : "123456789012",
  "Company Name" : "Bosvark Inc",
  "Company Registration Number" : "191202309235"
}
```

9 Document Types

GET: </api/entities/documents/types>

Returns document types that are supported for document upload on entity.

Example JSON response:

```
{
  "data": [
    {
      "type": "taxProof",
      "class": "Entity"
    },
    {
      "type": "bankAccountProof",
      "class": "Entity"
    },
    {
      "type": "idProof",
      "class": "Person"
    },
    {
      "type": "residentialAddressProof",
      "class": "Person"
    }
  ]
}
```

10 Document Upload

POST: /api/entities/{uniqueId}/documents/upload

Uploads a document on the specified entity matching uniqueId.

Example JSON request:

```
{  
  "type" : "idProof",  
  "fileContent" : "aGVsbG8gd29ybGQ=",  
  "hasOriginal" : "true",  
  "date" : "2024/01/01",  
  "expiryDate" : "2024/12/31",  
  "filename" : "doc.txt",  
  "label" : "document label"  
}
```

Response codes:

HTTP response	Code	Description
200		Document uploaded successfully
400	MalformedRequest	invalid document type supplied
400	MalformedRequest	Malformed request. Invalid JSON. Any payload that does not have the required fields.

Field	Description	Required
type	the document type. must be a valid type for the entity represented by {uniqueId} documentType: Use /api/entities/documents/types to retrieve valid options Validation error will be returned if unsupported value is supplied	yes
filename	name of the file and extensions. Mime type is inferred from extension	yes
fileContent	Base64 encoded contents of the file	yes
hasOriginal	flag for the copies / original setting of a document. true or false	no
expiryDate	expiry date on document in format yyyy/mm/dd	no
label	document label	no
date	document upload date in format yyyy/mm/dd	no