بوابـــة المقطـــع
MAQTA GATEWAY

JUL | Janela Única Logística

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MAQTA GATEWAY

JUL – Angola's National Logistics Single Window (Phase 1)

Integration Control Document

Contents

DU CERTIFICATE ISSUANCE PROCESS

Version 3.0
Abu Dhabi Ports
November 14, 2025

DOCUMENT CONTROL

Field	Value
Document Title	JUL-SINTECE Integration Control Document
Author	Linoy Pappachan Malakkaran
Project Name	JUL System Integration with SINTECE - CNCA Certificate Process
Document ID	ICD-JUL-SINTECE-002
Version	3.0
Organization	Abu Dhabi Ports
Date	November 14, 2025
Status	Draft for Review
Classification	Integration between Abu Dhabi Ports and SINTECE
Prepared By	Abu Dhabi Ports Integration Team
Scope	CNCA Certificate Issuance Process Integration with Amendment and Cancellation Workflows

Key Stakeholders

Abu Dhabi Ports - JUL System

Role	Name	Email
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ARCCLA - SINTECE System

Role	Name	Email
Integration Lead	TBD	
Technical Support	Support Team	
Project Manager	TBD	

Ver.	Date	Name	Role	Summary of Changes
1.0	2025-11-12	Linoy Pappachan Malakkaran	Senior Developer	Initial ICD creation with technical specifications for JUL-SINTECE integration. Defined API specifications, data models, integration workflows, security requirements, and testing procedures.
2.0	2025-11-13	Linoy Pappachan Malakkaran	Senior Developer	Added amendment and cancellation APIs, approval workflows, status management with canAmend/canCancel flags, validation framework, and error handling. Added process flow improvements and implementation recommendations.
3.0	2025-11-14	Linoy Pappachan Malakkaran	Senior Developer	Removed flow diagrams, webhook references, payment processing references. Added Keycloak SSO authentication, NIF validation API, invoice download API, status retrieval API, and consolidated CNCA certificate submission API. Updated table format to 6 columns.
3.0-U	2025-11-17	Linoy Pappachan Malakkaran	Senior Developer	Split Format/Derivation Logic columns, added WCO Data Model format standards to all API tables.

1 Introduction

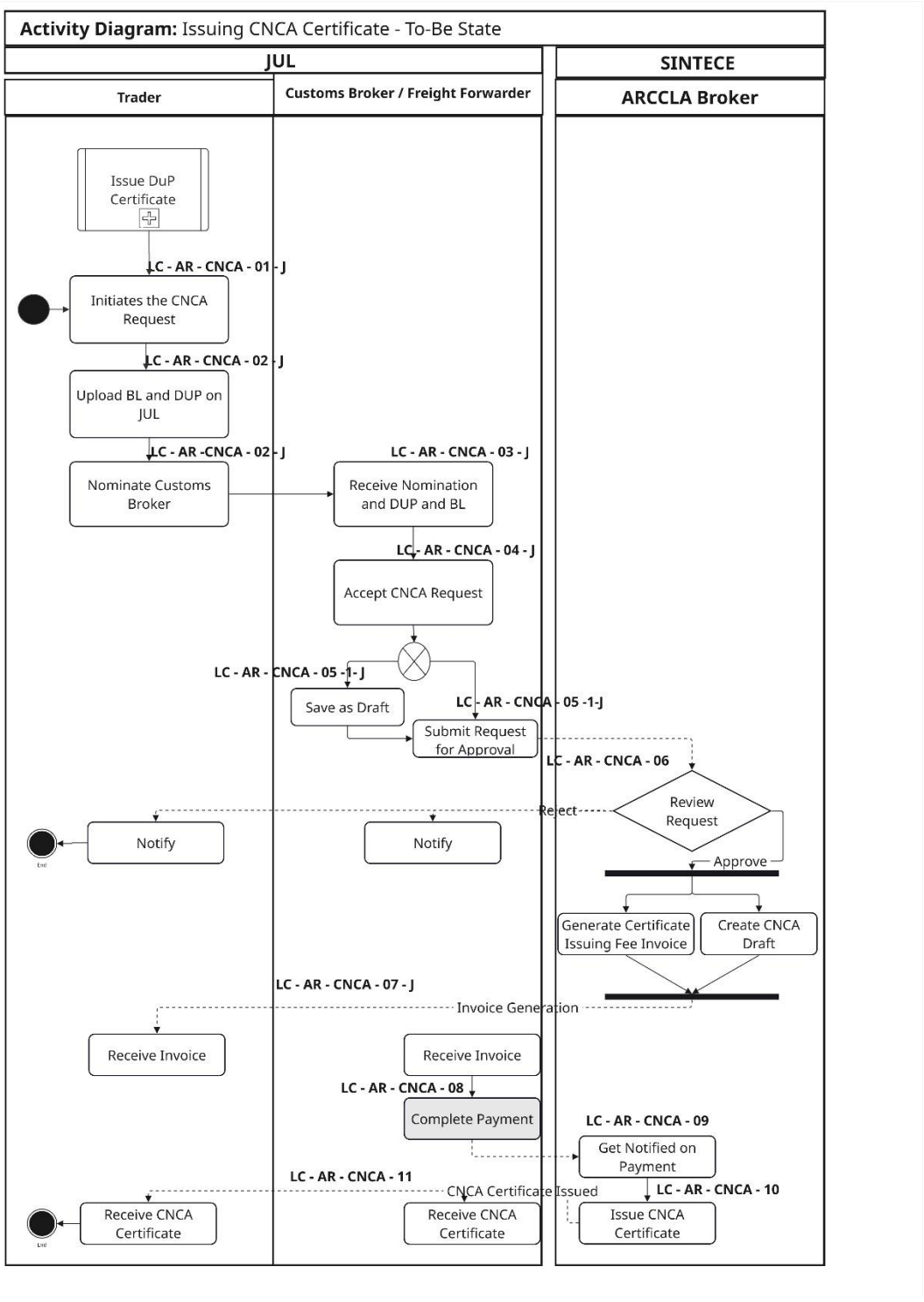
1.1 Purpose

This Interface Control Document (ICD) defines the technical specifications and interface requirements for integrating the JUL system (Abu Dhabi Ports) with the SINTECE system (ARCCLA) for CNCA certificate issuance.

1.2 Document Structure

This ICD document contains services specifications that serve both JUL, SINTECE as well as other entities.

1.3 Process Flow



1.4 Definition of Terms, Acronyms and Abbreviations

Term	Definition
ARCCLA	Angolan regulatory agency responsible for cargo certification
BL	Bill of Lading - shipping document required for certificates
CNCA	Certificado Nacional de Carga de Angola - required certificate for Angola cargo
CTN	Certificate/Cargo Tracking Note - internal certificate reference
DUP	Declaration of Unique Property - unique customs identifier
JUL	Abu Dhabi Ports system for CNCA certificate management
SINTECE	ARCCLA system for certificate processing and approval

1.5 Intended Audience

Sr. No	Group	Definition
1.	SINTECE	Sistema Integrado de Certificação Electrónica
2.	JUL	Advanced Trade & Logistics Platform

2 Interface Technical Specifications

S. No	Service Name	Provider	Consumer	Mode of Integration	Description
1.	Get Cargo Types	SINTECE	JUL	REST	Retrieve cargo type classifications for certificate creation
2.	Get Incoterms	SINTECE	JUL	REST	Get International Commercial Terms for trade documentation
3.	Get Countries	SINTECE	JUL	REST	Retrieve country information for origin/destination selection
4.	Get Carriers	SINTECE	JUL	REST	Get shipping carrier information for transport documentation
5.	Get Currencies	SINTECE	JUL	REST	Retrieve currency codes for financial calculations
6.	Get Banks	SINTECE	JUL	REST	Get banking institution data for payment processing
7.	Get Units	SINTECE	JUL	REST	Retrieve measurement units for cargo quantity calculations
8.	Get Container Types	SINTECE	JUL	REST	Get container type classifications for shipping
9.	Get Transport Types	SINTECE	JUL	REST	Retrieve transportation mode classifications
10.	Get Locations/Ports	SINTECE	JUL	REST	Get geographical location and port information
11.	Get Goods Classifications	SINTECE	JUL	REST	Retrieve standardized goods classification codes (HS codes)

12.	Get IMO Codes	SINTECE	JUL	REST	Get International Maritime Organization dangerous goods codes
13.	Get Vessels	SINTECE	JUL	REST	Retrieve vessel information for maritime transport
14.	Get CTN Cities	SINTECE	JUL	REST	Get city information for origin and destination tracking
15.	Get CTN Ports	SINTECE	JUL	REST	Get Angolan port information for CTN certificate processing
16.	Get CTN Attachments	SINTECE	JUL	REST	Retrieve document attachments for CTN certificates
17.	Create CTN Certificate	JUL	SINTECE	REST	Submit complete CTN certificate data in unified request
18.	Request Certificate Visa	JUL	SINTECE	REST	Submit CTN certificate for approval and visa issuance
19.	Upload Documents	JUL	SINTECE	REST	Upload supporting documents for certificate processing
20.	Delete Documents	JUL	SINTECE	REST	Remove uploaded documents from certificate
21.	Validate NIF Number	JUL	SINTECE	REST	Validate Angola Tax Registration Numbers for compliance
22.	Download Invoice	SINTECE	JUL	REST	Download CNCA certificate invoices (Import certificates only)
23.	Get Consignees	SINTECE	JUL	REST	Retrieve consignee information for certificate processing
24.	Get CTN Tracking	SINTECE	JUL	REST	Retrieve shipment tracking information for certificates
25.	Upload Files	JUL	SINTECE	REST	General file upload for document management
26.	Download Files	SINTECE	JUL	REST	Download uploaded files using file identifier
27.	Get Parent CTN Relationships	SINTECE	JUL	REST	Retrieve allowed parent CTN relationships for groupage
28.	Export CTN Data	SINTECE	JUL	REST	Export CTN certificate data in various formats (CSV, Excel)
29.	Status Retrieval	SINTECE	JUL	REST	Retrieve status of CNCA certificate

3 Technical Requirements

3.1 Security

The JUL-SINTECE integration shall use Keycloak as the primary Single Sign-On (SSO) solution for centralized authentication and authorization management. Keycloak provides enterprise-grade identity and access management capabilities, ensuring secure and seamless authentication across both JUL and AGT systems.

3.2 Reliability

3.2.1 High Availability

System Availability Requirements

- Target uptime percentage (e.g., 99.9%, 99.95%)
- Planned maintenance windows
- Maximum acceptable downtime per month

Redundancy & Failover

- Component redundancy (servers, databases, message queues)
- Load balancing strategy
- Automatic failover mechanisms and timeframe
- Geographic distribution (if multi-region)

Monitoring & Health Checks

- Health check endpoints and frequency
- Alerting thresholds and escalation procedures
- Monitoring metrics (CPU, memory, response times)

3.2.2 Disaster Recovery

Recovery Objectives

- RTO (Recovery Time Objective) - maximum acceptable downtime can be set to the agreed timeout with the client.
- RPO (Recovery Point Objective) - maximum acceptable data loss can be set to the agreed timeout with the client.
- Recovery priority tier for this system

Backup Strategy

- Backup frequency (hourly, daily, real-time replication)
- Backup retention period
- Backup location (on-site, off-site, cloud)
- Data components covered (databases, files, configurations)

Recovery Procedures

- DR site location (if applicable)

4 Get Master Data

This chapter covers the master data relevant for the CNCA Certificate

4.1 Get Cargo Types

4.1.1 Overview

Operation Name	GetCargoTypes
HTTP Type	GET
REST URL	/api/GetCargoTypes
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Manages cargo classification data essential for determining certificate fees, validation rules, and compliance requirements. Critical for proper cargo categorization in international shipping, affecting customs documentation, handling procedures, insurance requirements, and regulatory compliance.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.1.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	string	O	an..100	OData sort parameter	CargoType_Desc
2.	CargoType_Desc	string	O	an..200	Filter by cargo type description	CONTAINER
3.	active	boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	int	M	n..10	Total Count of the data retrieved	1

2.	CargoType_Code	string	M	an..10	Error Code in case of error	CONT
3.	CargoType_Desc	string	M	an..200	Master Data Code	CONTAINER
4.	Active	boolean	M	n1	Master Data Description in English	true
5.	CreatedOn	datetime	M	DATE	Master Data Description in Portugese	2023-01-15T10:30:00Z

Request and Response Samples

CargoTypesRequest.json CargoTypesResponse.json

4.2 Get Incoterms

4.2.1 Overview

Operation Name	GetIncoterms
HTTP Type	GET
REST URL	/api/Incoterms
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Provides International Commercial Terms (Incoterms) data crucial for determining responsibility boundaries, costs, and risks between buyers and sellers in international trade transactions. Affects shipping responsibilities, insurance requirements, customs clearance obligations, and liability allocation throughout the shipping process.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.2.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	string	O	an..100	OData sort parameter	IncotermCode
2.	IncotermCode	string	O	a3	Filter by Incoterm code	CIF

3.	active	boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	int	M	n..10	Unique Incoterm identifier	2
2.	IncotermCode	string	M	A3	Incoterm code	CIF
3.	IncotermDesc	string	M	an..200	Master Data Code	Cost, Insurance and Freight
4.	Active	boolean	M	n1	Incoterm description	true
5.	CreatedOn	datetime	M	DATE	Active status indicator	2

Request and Response Samples


IncotermsRequest.json


IncotermsResponse.json

4.3 Get Countries

4.3.1 Overview

Operation Name	GetCountries
SOAP URL	/api/Countries
HTTP Type	GET
Service Provider	AGT
Consumer	JUL
Business Purpose	Essential for international trade compliance, determining applicable regulations, duties, restrictions, and routing requirements for cargo shipments. Critical for sanctions screening, trade agreement benefits, customs procedures, and ensuring compliance with import/export regulations between trading nations
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.3.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	string	O	an..100	OData sort parameter	Country_Name
2.	Country_Name	string	O	an..100	Filter by country name	Angola
3.	ExportingCountry	boolean	O	n1	Filter exporting countries	true
4.	active	boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique country identifier	10
2.	Country_Name	String	M	an..100	Country name	Angola
3.	Country_Code	String	M	a2	ISO 3166 Alpha 3 country code	AO
4.	ExportingCountry	Boolean	M	n1	Exporting country flag	true
5.	ImportingCountry	Boolean	M	n1	Importing country flag	false

Request and Response Samples

CountriesRequest.json CountriesResponse.json

4.4 Get Carriers

4.4.1 Overview

Operation Name	GetCarriers
REST URL	/api/Carriers
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL

Business Purpose	Manages shipping carrier information essential for maritime transport documentation and tracking. Critical for bill of lading validation, carrier liability determination, vessel scheduling coordination, and ensuring proper documentation of transportation responsibility throughout the supply chain.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.4.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	string	O	an..100	OData sort parameter	Name
2.	Name	string	O	an..200	Filter by carrier name	A.C. ORSSLEFF'S
3.	active	boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	integer	M	n..10	Unique carrier identifier	789
2.	Name	string	M	an..200	Carrier company name	A.C. ORSSLEFF'S EFTF A/S
3.	LicenseNumber	string	O	an..50	Carrier license number	LICENSE123
4.	Address	string	O	an..500	Carrier address	Kongevejen 40
5.	City	string	O	an..100	Carrier city	2840 Holte
6.	CountryId	Integer	O	n..10	Country identifier	56
7.	Email	String	O	an..200	Contact email	chartering@acoe.dk
8.	Telephone	String	O	an..50	Contact telephone	+45 45 46 00 66
9.	TrackingURL	String	O	an..500	Tracking website URL	https://track.carrier.com

Request and Response Samples

CarriersResponse.json CarriersRequest.json

4.5 Get ARCCLA Broker

4.5.1 Overview

Operation Name	GetArcclabroker
REST URL	/api/arcclabroker
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Manages ARCCLA Broker information essential for documentation and tracking in country of origin. Critical for bill of lading validation, invoicing and coordination, and ensuring proper documentation of transportation responsibility throughout the supply chain.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.5.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
4.	$sort	string	O	an..100	OData sort parameter	Name
5.	Name	string	O	an..200	Filter by Arccla Broker name	A.C. ORSSLEFF'S
6.	Country	string	O	a..50	Filter by country name	
7.	active	boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
10.	Id	integer	M	n..10	Unique carrier identifier	789
11.	Name	string	M	an..200	Carrier company name	A.C. ORSSLEFF'S EFTF A/S
12.	LicenseNumber	string	O	an..50	Carrier license number	LICENSE123
13.	Address	string	O	an..500	Carrier address	Kongevejen 40
14.	City	string	O	an..100	Carrier city	2840 Holte
15.	CountryId	Integer	O	n..10	Country identifier	56
16.	Email	String	O	an..200	Contact email	chartering@acoe.dk
17.	Telephone	String	O	an..50	Contact telephone	+45 45 46 00 66
18.	TrackingURL	String	O	an..500	Tracking website URL	https://track.carrier.com

4.6 Get Currencies

4.6.1 Overview

Operation Name	GetCurrencies
REST URL	/api/Currencies
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get Currencies Master Data from SINTECE system
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.6.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data

	$sort	string	O	an..100	OData sort parameter	Code
	Code	string	O	a3	Filter by currency name	USD
	active	boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique currency identifier	2
2.	Code	String	M	a3	ISO currency code	USD
3.	Name	String	O	an..100	Currency name	US Dollar
4.	Symbol	String	O	an..5	Currency symbol	$

Request and Response Samples

CurrenciesResponse.json CurrenciesRequest.json

4.7 Get Banks

4.7.1 Overview

Operation Name	GetBanks
REST URL	/api/GetBanks
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of Banks from SINTECE system
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.7.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	string	O	an..100	OData sort parameter	Name
2.	Name	string	O	an..200	Filter by bank name	Standard Bank
3.	active	boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique bank identifier	15
2.	Name	String	M	an..200	Bank institution name	Standard Bank Angola
3.	Code	String	O	an..20	Bank code	SBA
4.	SwiftCode	String	O	an..11	International SWIFT code	SBICAOLU
5.	Active	Boolean	M	n1	Active status indicator	true

Request and Response Samples

BanksResponse.json BanksRequest.json

4.8 Get Units

4.8.1 Overview

Operation Name	GetUnits
REST URL	/api/GetUnits
HTTP Type	GET

Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of Units from SINTECE System
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.8.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	Unit_Desc
2.	Unit_Desc	String	O	an..50	Filter by unit description	KG
3.	UnitType	String	O	an..20	Filter by unit category	Weight
4.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	an..50	Unit description	Kilogram
2.	Unit_Desc	String	M	an..10	Standard unit symbol	KG
3.	UnitSymbol	String	M	an..20	Unit category	Weight
4.	UnitType	String	O	n..10,6	Conversion to base unit	1.000
5.	ConversionFactor	Decimal	M	n1	Active status indicator	true
6.	Active	Boolean	M	an..50	Unit description	Kilogram

Request and Response Samples


UnitsResponse.json


UnitsRequest.json

4.9 Get Container Types

4.9.1 Overview

Operation Name	GetContainers
REST URL	/api/GetContainers
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of Containers from SINTECE system
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.9.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	Container_Type
2.	Container_Type	String	O	an..50	Filter by container type	20GP
3.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique container type identifier	1
2.	Container_Type	String	M	an..50	Container type code	20GP
3.	Description	String	M	an..200	Container description	20-foot General Purpose
4.	Length	Decimal	O	n..5,2	Container length in feet	20.00

5.	Width	Decimal	O	n..5,2	Container width in feet	8.00
6.	Height	Decimal	O	n..5,2	Container height in feet	8.50
7.	MaxWeight	Decimal	O	n..8,2	Maximum weight capacity in tons	28.20
8.	Active	Boolean	M	n1	Active status indicator	true

Request and Response Samples

ContainerTypesResponse.json ContainerTypesRequest.json

4.10 Get Transport Types

4.10.1 Overview

Operation Name	GetTransportTypes
REST URL	/api/ GetTransportTypes
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of Transport Types from SINTECE system
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.10.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	Type_Name
2.	Type_Name	String	O	an..50	Filter by transport type	Sea
3.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique transport type identifier	1
2.	Type_Name	String	M	an..50	Transport type name	Sea
3.	Description	String	O	an..200	Transport type description	Maritime sea transport
4.	Code	String	O	an..10	Transport type code	SEA
5.	Active	Boolean	M	n1	Active status indicator	true

4.10.3 Request and Response Samples

TransportTypesResponse.json TransportTypesRequest.json

4.11 Get Locations/Ports

4.11.1 Overview

Operation Name	GetLocations
REST URL	/api/GetLocations
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of Locations from SINTECE system
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.11.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data

1.	$sort	String	O	an..100	OData sort parameter	PortName
2.	CountryId	Integer	M	n..10	Country identifier filter	4
3.	PortName	String	O	an..200	Filter by port name	Dubai
4.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique location identifier	1
2.	PortName	String	M	an..200	Port/location name	Port of Dubai
3.	PortCode	String	O	an..10	Standard port code	DXB
4.	CountryId	Integer	M	n..10	Associated country	4
5.	CountryName	String	O	an..100	Country name	United Arab Emirates
6.	Active	Boolean	M	n1	Active status indicator	true

Request and Response Samples

LocationsResponse.json LocationsRequest.json

4.12 Get Goods Classification

4.12.1 Overview

Operation Name	GetGoodsClassification
REST URL	/api/GetGoodsClassification
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of Goods Classification from SINTECE system
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.12.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	Goods_Classification_Desc
2.	Goods_Classification_Desc	String	O	an..200	Filter by classification	Electronics
3.	ClassificationCode	String	O	an..20	Filter by classification code	HS8517
4.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique classification identifier	1
2.	Goods_Classification_Desc	String	M	an..200	Classification description	Electronic equipment
3.	ClassificationCode	String	M	an..20	HS classification code	HS8517
4.	Category	String	O	an..100	Classification category	Electronics
5.	DutyRate	Decimal	O	n..5,2	Applicable duty rate percentage	5.00
6.	Active	Boolean	M	n1	Active status indicator	true

Request and Response Samples


GoodsClassificationsResponse.json


GoodsClassificationsRequest.json

4.13 Get IMO Codes

4.13.1 Overview

Operation Name	GetImoCodes
REST URL	/api/GetImoCodes
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of IMO codes from SINTECE system
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.13.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	IMO_Desc
2.	IMO_Desc	String	O	an..200	Filter by IMO description	Flammable Liquids
3.	IMOClass	String	O	an..10	Filter by IMO class	3
4.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique IMO identifier	1
2.	IMO_Desc	String	M	an..200	IMO description	Flammable Liquids
3.	IMOClass	String	M	an..10	IMDG hazard class	3
4.	UNNumber	String	O	an..10	UN identification number	UN1203

5.	PackingGroup	String	O	an..5	Packing group classification	II
6.	Active	Boolean	M	n1	Active status indicator	true

Request and Response Samples

IMOResponse.json IMORequest.json

4.14 Get Vessels

4.14.1 Overview

Operation Name	GetVessels
REST URL	/api/GetVessels
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of Vessels from SINTECE System
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.14.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	Name
2.	Name	String	O	an..256	Filter by vessel name	CPO HAMBURG
3.	Code	String	O	an..20	Filter by vessel code	229638000
4.	active	Integer	O	n1	Active status filter	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique vessel identifier	5132
2.	Name	String	M	an..256	Vessel name	CPO HAMBURG1234
3.	Code	String	M	an..20	Vessel identification code	229638000
4.	IDNumber	String	M	an..20	IMO number	9450375
5.	FlagId	Integer	O	n..10	Flag state identifier	148
6.	Flag	String	O	an..100	Flag state name	Germany
7.	Active	Boolean	M	n1	Active status	true

Request and Response Samples


VesselsResponse.json


VesselsRequest.json

4.15 Get CTN Cities

4.15.1 Overview

Operation Name	GetCTNCities
REST URL	/api/GetCTNCities
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of CTN Cities
Service	REST
Pattern	Synchronous
Security	Basic Authentication

4.15.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	Name
2.	CountryId	Integer	M	n..10	Country identifier filter	10
3.	Name	String	O	an..200	Filter by city name	Luanda
4.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique city identifier	262
2.	Name	String	M	an..200	City name	Benguela
3.	CountryId	Integer	M	n..10	Associated country identifier	10
4.	Country	String	O	an..100	Country name	Angola
5.	Active	Boolean	M	n1	Active status indicator	true

Request and Response Samples

CTNCitiesResponse.json CTNCitiesRequest.json

4.16 Get CTN Ports

4.16.1 Overview

Operation Name	GetCTNPorts
REST URL	/api/GetCTNPorts
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Get List of CTN Ports from SINTECE system
Service	REST

Pattern	Synchronous
Security	Basic Authentication

4.16.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	String	O	an..100	OData sort parameter	Name
2.	Name	String	O	an..100	Filter by port name	Luanda
3.	PortCode	String	O	an..10	Filter by port code	LAD
4.	active	Boolean	O	n1	Filter active records only	1

Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Unique port identifier	1
2.	Name	String	M	an..100	Port name	Port of Luanda
3.	PortCode	String	M	an..10	Standard port code	LAD
4.	CustomsOffice	String	O	an..100	Associated customs office	Alfândega de Luanda
5.	Active	Boolean	M	n1	Active status indicator	true

Request and Response Samples


CTNPortsResponse.json


CTNPortsRequest.json

5 Get CTN Attachments

5.1 Overview

Operation Name	GetCTNAttachments
REST URL	/api/GetCTNAttachments
HTTP Type	GET
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Manages CTN certificate attachments and supporting documents essential for compliance verification and audit trails. Critical for storing required documentation, enabling file downloads, maintaining document integrity, and ensuring complete certificate packages for customs and regulatory review.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

5.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

5.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$expand	String	O	an..500	OData expand parameter	CreatedBy,attachment,attachmentName
2.	ctn	String	M	an..100	CTN identifier	503808
3.	ctnid	Integer	M	n..3	CTN identifier (alternative)	503808

5.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Attachment record ID	12345
2.	CTNId	String	M	an..50	Related CTN ID	503808
3.	FileName	String	M	an..50	Original file name	bill_of_lading.pdf
4.	FileSize	String	M	an..50	File size in bytes	2048576

5.	AttachmentTypeId	String	M	an..50	Type of attachment	1
6.	AttachmentTypeName	Integer	O	n..10	Attachment type description	Bill of Lading
7.	UploadDate	Integer	M	n..10	File upload timestamp	2023-12-15T10:30:00Z
8.	CreatedById	Data Type	M	an..50	User who uploaded file	13345

5.2.3 Request and Response Samples


CTNAttachmentsResponse.json


CTNAttachmentsRequest.json

6 Create CTN Certificate

6.1 Overview

Operation Name	ctns
REST URL	/api/ctns
HTTP Type	POST
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Creates new CTN certificate records with complete information for CNCA certificate applications in a single comprehensive request. This unified API combines what was previously multiple separate operations (creation, addresses, goods, containers, tracking, attachments) into one streamlined submission. Critical for submitting complete certificate requests, establishing certificate records with all required data, validating comprehensive submission data, and enabling the certificate approval workflow efficiently.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

6.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

6.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	Id	Integer	O	n..10	CTN identifier (null for new records)	null

2.	CTN_Reference_Number	String	O	an..50	System generated reference (auto-assigned)	""
3.	StatusId	Integer	M	n..10	Status identifier (1=Created/Draft)	1
4.	Groupage	Boolean	O	n1	Groupage indicator (true/false)	false
5.	ParentCTNId	Integer	O	n..10	Parent CTN identifier (null for standalone)	null
6.	CargoTypeId	Integer	M	n..10	Cargo type identifier (foreign key, must be valid)	1
7.	ETD	DateTime	O	DATE	Estimated time departure (ISO 8601, nullable)	null
8.	ETA	DateTime	O	DATE	Estimated time arrival (ISO 8601, nullable)	null
9.	BL_number	String	M	an..50	Bill of lading number (unique, alphanumeric)	vc568009iujh
10.	IncotermId	Integer	M	n..10	Incoterm identifier (foreign key, must be valid)	2
11.	OriginCountryId	Integer	M	n..10	Origin country identifier (foreign key, must be valid)	10
12.	FinalDestinationCountryId	Integer	M	n..10	Destination country identifier (foreign key)	4
13.	FreightPaymentTypeId	Integer	M	n..10	Freight payment type identifier (foreign key)	1
14.	Total_number_containers	Integer	O	n..5	Total containers count (positive integer)	0
15.	Total_number_vehicles	Integer	O	n..5	Total vehicles count (positive integer)	0
16.	Total_Ocean_Freight	Decimal	O	n..16,3	Total ocean freight value (max 3 decimals)	0
17.	Total_Value_Of_Goods	Decimal	O	n..16,3	Total goods value in USD (max 3 decimals)	0
18.	Total_Charges	Decimal	O	n..16,3	Total charges amount (max 3 decimals)	0
19.	General_Total	Decimal	O	n..16,3	General total amount (max 3 decimals)	0

20.	View_CurrencyId	Integer	M	n..10	Currency identifier (foreign key, must be valid)	1
21.	Exchange_Rate	Decimal	O	n..12,5	Exchange rate (max 5 decimals)	1
22.	VoyageNo	String	O	an..50	Voyage number (alphanumeric)	null
23.	IsExport	Boolean	M	n1	Export indicator (true for export, false for import)	true
24.	IsImport	Boolean	O	n1	Import indicator (true/false)	false
25.	Origin_CityId	Integer	M	n..10	Origin city identifier (foreign key, must be valid)	262
26.	Final_Destination_CityId	Integer	O	n..10	Final destination city (foreign key, nullable)	null
27.	CarrierId	Integer	M	n..10	Carrier identifier (foreign key, must be valid)	789
28.	UniqueTradeNumber	String	M	an..50	Unique trade number/DUP (unique, numeric)	56789098765
29.	BankId	Integer	O	n..10	Bank identifier (foreign key, nullable)	2
30.	ConsigneeId	Integer	M	n..10	Consignee identifier (foreign key, must be valid)	43214
31.	DCNumber	String	O	an..50	Document control number (alphanumeric)	7777777
32.	CreatedOn	DateTime	O	DATE	Creation timestamp (ISO 8601, system generated)	2025-11-12T18:49:30.88Z
33.	CreatedById	Integer	O	n..10	Creator identifier (system generated)	1
Address_info(array)						
34.	CTN_Addresses	Array	O	-	Array of address objects (shipper, consignee, forwarder, notify)	[...]
35.	Id	Integer	O	n..10	Address identifier (null for new records)	null

36.	QryAddressTypeId	Integer	M	n..10	Address type (1=Shipper, 2=Consignee, 3=Forwarder, 4=Notify)	2
37.	Name	String	M	an..200	Company/Person name (max 200 chars)	M.A.C.S AS.TEC.N. E IND
38.	Address	String	M	an..500	Physical address (max 500 chars)	maculusso rua comandate
39.	City	String	M	an..100	City name (max 100 chars)	kwenhan
40.	CountryId	Integer	M	n..10	Country identifier (foreign key, must be valid)	10
41.	Email	String	O	an..100	Email address (valid email format)	contact@company.com
42.	Telephone	String	M	an..50	Phone number (max 50 chars)	923798669
43.	NIFNumber	String	M	an..50	Tax identification number (9-14 digits)	0000000458608
GoodsInfo(array)						
44.	CTN_Goods	Array	O	-	Array of goods/cargo objects	[…]
45.	Id	Integer	O	n..10	Goods identifier (null for new records)	null
46.	GoodsClassificationId	Integer	M	n..10	Goods classification identifier (foreign key)	16882
47.	IMOId	Integer	M	n..10	IMO hazardous code identifier (foreign key)	2
48.	CargoTypeId	Integer	M	n..10	Cargo type identifier (foreign key)	1
49.	DescriptionGoods	String	M	an..500	Goods description (max 500 chars)	test
50.	GrossWeightKG	Decimal	M	n..16,6	Gross weight in kg (max 6 decimals, positive)	10.0
51.	VolumeCBM	Decimal	M	n..16,6	Volume in cubic meters (max 6 decimals, positive)	11.0
52.	OceanFreight	Decimal	M	n..16,3	Ocean freight cost (max 3 decimals, positive)	22.0

53.	ValueOfGoods	Decimal	M	n..16,3	Value of goods in USD (max 3 decimals, positive)	33.0
54.	NumberOfPackages	Integer	M	n..8	Number of packages (positive integer, no decimals)	3
ContainerInfo(array)						
55.	CTN_Containers	Array	O	-	Array of container objects	[...]
56.	Id	Integer	O	n..10	Container identifier (null for new records)	null
57.	ContainerTypeId	Integer	M	n..10	Container type identifier (foreign key, must be valid)	31
58.	Number_of_Containers	Integer	M	n..5	Number of containers (positive integer)	1
59.	ContainerNumbers	String	M	an..100	Container number(s) (alphanumeric, max 100 chars)	MSCU1234567
60.	SealNumbers	String	M	an..100	Seal number(s) (alphanumeric, max 100 chars)	23234
61.	Groupage	Boolean	O	n1	Groupage indicator (true/false)	false
62.	IsEmpty	Boolean	O	n1	Empty container indicator (true/false)	false
63.	OwnedByShipper	Boolean	O	n1	Shipper owned indicator (true/false)	false
TransportInfo(array)						
64.	CTN_Tracking	Array	O	-	Array of transport route objects	[...]
65.	Id	Integer	O	n..10	Tracking identifier (null for new records)	null
66.	SourceCountryId	Integer	M	n..10	Source country identifier (foreign key, must be valid)	10
67.	SourcePortId	Integer	M	n..10	Source port identifier (foreign key, must be valid)	80
68.	ETD	DateTime	M	DATE	Estimated time departure (ISO 8601, must be before ETA)	2025-11-12T00:00:00.000Z

69.	TransportTypeId	Integer	M	n..10	Transport type identifier (foreign key, must be valid)	1
70.	VoyageNumber	String	M	an..50	Voyage number (alphanumeric, max 50 chars)	546894
71.	CarrierId	Integer	M	n..10	Carrier identifier (foreign key, must be valid)	789
72.	VesselId	Integer	M	n..10	Vessel identifier (foreign key, must be valid)	5163
73.	DestinationCountryId	Integer	M	n..10	Destination country identifier (foreign key)	4
74.	DestinationPortId	Integer	M	n..10	Destination port identifier (foreign key, must be valid)	35
75.	ETA	DateTime	M	DATE	Estimated time arrival (ISO 8601, must be after ETD)	2025-12-09T00:00:00.000Z
76.	Sequence	Integer	M	n..5	Sequence number (positive integer for route ordering)	1
AttachmentInfo(array)						
77.	CTN_Attachments	Array	O	-	Array of document attachment objects	[...]
78.	Id	Integer	O	n..10	Attachment identifier (null for new records)	null
79.	AttachmentGuid	String	M	an..50	File upload GUID from fileupload API (UUID format)	0da7461c-2155-4d20-a695-6b7463367327
80.	NameId	Integer	M	n..10	Attachment name type identifier (foreign key)	4

6.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	New CTN identifier (system generated)	503808
2.	CTN_Reference_Number	String	M	an..50	System generated reference (format: AO-CNT-{ID}-{YEAR})	AO-CNT-503808-2025

3.	StatusId	Integer	M	n..10	Initial status (1=Draft, system assigned)	1
4.	BL_number	String	M	an..50	Confirmed BL number (as submitted)	vc568009iujh
5.	UniqueTradeNumber	String	M	an..50	Confirmed trade number (as submitted)	56789098765
6.	CreatedOn	DateTime	M	DATE	Creation timestamp (ISO 8601, system generated)	2025-11-14T10:30:00Z
7.	CreatedById	Integer	M	n..10	Creator user identifier (system generated)	1
8.	AddressesCreated	Integer	M	n..5	Number of addresses created (count)	2
9.	GoodsCreated	Integer	M	n..5	Number of goods entries created (count)	1
10.	ContainersCreated	Integer	M	n..5	Number of container entries created (count)	1
11.	TrackingCreated	Integer	M	n..5	Number of tracking entries created (count)	1
12.	AttachmentsCreated	Integer	M	n..5	Number of attachments created (count)	2

6.2.3 Request and Response Samples

CTNCreationResponse.json CTNCreationRequest.json

7 Validate NIF Number

7.1 Overview

Operation Name	nif
REST URL	/api/validation/nif
HTTP Type	POST
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Validates NIF (Número de Identificação Fiscal) - Angola Tax Registration Number for importers, exporters, and consignees. Critical for ensuring tax compliance, preventing fraud, validating business entities, and meeting ARCCLA regulatory requirements for CNCA certificate processing.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

7.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

7.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	nifNumber	string	M	an..14	Angola Tax Registration Number (9-14 alphanumeric)	5000000000
2.	entityName	string	O	an..200	Name of entity for cross-validation (max 200 chars)	ABC Trading Company
3.	entityType	string	O	an..20	Type of entity (IMPORTER/EXPORTER/CONSIGNEE)	IMPORTER
4.	validationType	string	O	an..20	Validation type (STANDARD/ENHANCED)	STANDARD

7.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	validationStatus	string	M	an..20	Validation result (VALID/INVALID/SUSPENDED)	VALID
2.	nifNumber	string	M	an..14	Validated NIF number (as submitted)	5000000000
3.	registeredName	string	O	an..200	Official registered name from tax authority	ABC Trading Company Lda
4.	entityStatus	string	O	an..20	Entity status (ACTIVE/INACTIVE/SUSPENDED)	ACTIVE
5.	registrationDate	date	O	DATE	NIF registration date (YYYY-MM-DD format)	2020-05-15
6.	validationCode	string	M	an..10	Validation result code (system defined)	NIF_VALID
7.	validationMessage	string	M	an..500	Detailed validation message (max 500 chars)	NIF is valid and active

8.	errorDetails	array	O	-	Array of validation errors if any (empty on success)	[]

7.2.3 Request and Response Samples

NIFValidationResponse.json NIFValidationRequest.json

8 Download Invoice

8.1 Overview

Operation Name	download
REST URL	/api/invoices/{invoiceId}/download
HTTP Type	POST
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Enables download of CNCA certificate invoices after certificate completion for import profiles only. Critical for financial record-keeping, customs documentation, and audit trail maintenance. Not applicable for export certificates.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

8.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

8.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	invoiceId	string	M	an..50	Unique invoice identifier (alphanumeric with hyphens)	INV-2024-001234
2.	format	string	O	an..10	Invoice format (PDF/XML, default PDF)	PDF

3.	certificateType	string	O	an..20	Certificate type for validation (IMPORT/EXPORT)	IMPORT

8.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	fileName	string	M	an..100	Generated file name (format: invoice_{ID}.{ext})	invoice_INV-2024-001234.pdf
2.	fileSize	number	M	n..10	File size in bytes (positive integer)	245678
3.	contentType	string	M	an..50	MIME type of file (application/pdf or text/xml)	application/pdf
4.	downloadUrl	string	O	an..500	Direct download URL (if applicable, nullable)	https://jul.adports.ae/downloads/...
5.	invoiceData	binary	M	-	Invoice file binary content (Base64 encoded)	[binary data]
6.	generatedDate	date	M	DATE	Invoice generation timestamp (ISO 8601 format)	2025-11-14T10:30:00Z

8.2.3 Request and Response Samples

InvoiceDownloadResponse.json InvoiceDownloadRequest.json

9 Get Consignees

9.1 Overview

Operation Name	Consignees
HTTP Type	GET
REST URL	/api/Consignees
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Manages consignee information essential for CTN certificate processing and customs compliance. Critical for identifying cargo recipients, validating company details, ensuring proper documentation, and enabling accurate certificate issuance with verified consignee data.

Service	REST
Pattern	Synchronous
Security	Basic Authentication

9.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

9.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$sort	string	O	an..100	OData sort parameter for result ordering	NIFNumber
2.	NIFNumber	string	O	an..50	Filter by NIF number (9-14 alphanumeric)	123456789
3.	CompanyName	string	O	an..200	Filter by company name (partial match, min 3 chars)	ACME
4.	active	boolean	O	n1	Filter active records only (1=active, 0=inactive)	1

9.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
6.	Id	int	M	n..10	Total Count of the data retrieved	1
7.	CargoType_Code	string	M	an..10	Error Code in case of error	CONT
8.	CargoType_Desc	string	M	an..200	Master Data Code	CONTAINER
9.	Active	boolean	M	n1	Master Data Description in English	true
10.	CreatedOn	datetime	M	DATE	Master Data Description in Portugese	2023-01-15T10:30:00Z

9.2.3 Request and Response Samples


ConsigneesRespon se.json


ConsigneesRequest .json

10 Get CTN Tracking

10.1 Overview

Operation Name	ctnTracking
HTTP Type	GET
REST URL	/api/ctnTracking
Service Provider	SINTECE
Consumer	JUL
Business Purpose	Manages CTN shipment tracking information essential for logistics monitoring and cargo visibility. Critical for providing real-time shipment status, managing transport schedules, and enabling proactive logistics coordination throughout the shipping lifecycle.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

10.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

10.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$expand	String	O	an..500	OData expand parameter (comma-separated entities)	CTN,DestinationPort,SourcePort,TransportType
2.	ctn	Integer	M	n..10	CTN identifier (positive integer, required)	503808
3.	ctnid	Integer	M	n..10	CTN identifier alternative (positive integer)	503808

10.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Tracking record identifier, system generated	71898
2.	CTNId	Integer	M	n..10	Related CTN identifier (foreign key)	503808
3.	SourcePortId	Integer	O	n..10	Source port identifier (foreign key, nullable)	150
4.	DestinationPortId	Integer	O	n..10	Destination port identifier (foreign key, nullable)	275
5.	TransportTypeId	Integer	M	n..10	Transport type identifier (foreign key, required)	1
6.	ETD	DateTime	O	DATE	Estimated time of departure (ISO 8601, nullable)	2023-12-15T10:00:00Z
7.	ETA	DateTime	O	DATE	Estimated time of arrival (ISO 8601, nullable)	2023-12-20T15:30:00Z
8.	ATD	DateTime	O	DATE	Actual time of departure (ISO 8601, nullable)	2023-12-15T11:15:00Z
9.	ATA	DateTime	O	DATE	Actual time of arrival (ISO 8601, nullable)	2023-12-20T14:45:00Z
10.	VesselId	Integer	O	n..10	Vessel identifier (foreign key, nullable)	5163
11.	VoyageNumber	String	O	an..50	Voyage number (alphanumeric, max 50 chars)	546894

10.2.3 Request and Response Samples


CTNTrackingResponse.json


CTNTrackingRequest.json

11 Upload Files

11.1 Overview

Operation Name	fileupload
HTTP Type	GET

REST URL	/api/fileupload
Service Provider	SINTECE
Consumer	JUL
Business Purpose	API to upload documents
Service	REST
Pattern	Synchronous
Security	Basic Authentication

11.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

11.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	file	Binary	M	-	File upload (multipart/form-data, max 10MB)	[binary file data]
2.	fileName	String	M	an..256	Original file name (alphanumeric with extensions)	Bill_of_Lading.pdf
3.	description	String	O	an..500	File description (max 500 chars, optional)	Original shipping document

11.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	fileId	String	M	an..50	Unique file identifier (UUID format, system generated)	0da7461c-2155-4d20-a695-6b7463367327
2.	fileName	String	M	an..256	Uploaded file name (as submitted)	Bill_of_Lading.pdf
3.	fileSize	Integer	M	n..10	File size in bytes (positive integer)	245760
4.	mimeType	String	M	an..100	File MIME type (auto-detected from file)	application/pdf
5.	uploadDate	DateTime	M	DATE	Upload timestamp (ISO 8601 format, system generated)	2023-11-12T14:30:00Z

11.2.3 Request and Response Samples

FileUploadRespons e.json FileUploadRequest. json

12 Download Files

12.1 Overview

Operation Name	filedownload
HTTP Type	GET
REST URL	/api/filedownload/{fileId}
Service Provider	SINTECE
Consumer	JUL
Business Purpose	API to download the file
Service	REST
Pattern	Synchronous
Security	Basic Authentication

12.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

12.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	fileId	String	M	an..50	File identifier from URL path (UUID format)	0da7461c-2155-4d20-a695-6b7463367327

12.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	contentStream	Binary	M	-	Base64 encoded file content	JVBERi0xLjQKJeLjz9 MK...
2.	fileName	String	M	an..256	Original file name	Bill_of_Lading.pdf
3.	mimeType	String	M	an..100	File MIME type	application/pdf

4.	fileSize	Integer	M	n..10	File size in bytes	245760

12.2.3 Request and Response Samples

DownloadFileResponse.json DownloadFileRequest.json

13 Get Parent CTN Relationships

13.1 Overview

Operation Name	GetAllowedParentCtns
HTTP Type	GET
REST URL	/api/Ctns/GetAllowedParentCtns
Service Provider	SINTECE
Consumer	JUL
Business Purpose	
Service	REST
Pattern	Synchronous
Security	Basic Authentication

13.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

13.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	ctnId	Integer	M	n..10	Current CTN identifier (positive integer, required)	503808
2.	$sort	String	O	an..100	OData sort parameter for result ordering	BL_number
3.	BL_number	String	O	an..50	Filter by Bill of Lading number (partial match)	MSC123456

13.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Id	Integer	M	n..10	Parent CTN ID (system generated identifier)	503800
2.	CTN_Reference_Number	String	M	an..50	Parent CTN reference (format: AO-CNT-{ID}-{YEAR})	AO-CNT-503800-2023
3.	BL_number	String	M	an..50	Parent Bill of Lading (alphanumeric)	MSC123456
4.	StatusId	Integer	M	n..10	Parent CTN status (system defined status code)	2
5.	CanBeParent	Boolean	M	n1	Eligibility as parent (true/false, dynamically calculated)	true

13.2.3 Request and Response Samples

14 Export CTN Data

14.1 Overview

Operation Name	export
HTTP Type	GET
REST URL	/api/ctns/export
Service Provider	SINTECE
Consumer	JUL
Business Purpose	export data functionality
Service	REST
Pattern	Synchronous
Security	Basic Authentication

14.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

14.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	$export_format	String	O	an..500	OData expand parameter (comma-separated entity names)	CargoType,Status,Visum_Agent
2.	$sort	String	M	an..10	Export format (csv/xlsx/json, required)	csv
3.	$top	Integer	O	an..100	OData sort parameter for result ordering	-ModifiedOn
4.	$filter	String	O	n..5	Number of records to export (max 1000, default all)	10
5.	$export_format	String	O	an..1000	OData filter expression for data selection	StatusId eq 2

14.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Format/Derivation logic for fields	Example Data
1.	Content	Text/CSV	M	-	CSV formatted CTN data (or xlsx/json based on format parameter)	"Id","CTN_Reference_Number"...
2.	ContentType	String	M	an..50	Response content type (text/csv or application/vnd.ms-excel or application/json)	text/csv
3.	FileName	String	M	an..100	Suggested file name (format: CTN_Export_{YYYYMMDD}.{ext})	CTN_Export_20231112.csv

14.2.3 Request and Response Samples

15 Status Retrieval

15.1 Overview

Operation Name	status
HTTP Type	GET
REST URL	/api/ctns/{ctnId}/status

Service Provider	SINTECE
Consumer	JUL
Business Purpose	Enables JUL system to retrieve the current status of CNCA certificates by polling the SINTECE system. Replaces webhook-based notifications with pull-based status updates, providing reliable status synchronization, eliminating callback URL management, and supporting firewall-friendly integration patterns.
Service	REST
Pattern	Synchronous
Security	Basic Authentication

15.2 Request and Response Elements

In the following table, all request objects with their details and fields with their respective data types are listed. Each element inside the request is marked as mandatory or optional by a postfix M/O.

15.2.1 Request Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory/Optional)	Format	Derivation logic for fields	Example Data
1.	ctnId	Integer	M	n..10	CTN certificate identifier from path (positive integer)	503808
2.	includeHistory	Boolean	O	n1	Include status change history (true/false, default false)	false
3.	includeDetails	Boolean	O	n1	Include detailed status information (true/false, default true)	true

15.2.2 Response Elements

S. No	Attributes	Data Type - Length	Condition (Mandatory /Optional)	Format	Format/Derivation logic for fields	Example Data
1.	ctnId	Integer	M	n..10	CTN certificate identifier (as requested)	503808
2.	ctnReferenceNumber	String	M	an..50	System generated CTN reference (format: {ID} or full)	170543
3.	currentStatus	String	M	an..50	Current certificate status (from predefined status list)	Approved
4.	statusId	Integer	M	n..10	Status identifier (system defined)	3

5.	statusUpdatedAt	DateTime	M	DATE	Last status update timestamp (ISO 8601 format)	2025-11-14T10:30:00Z
6.	statusUpdatedBy	String	O	an..100	User who updated status (username, nullable)	ARCCLA_Broker_123
7.	canAmend	Boolean	M	n1	Amendment eligibility flag (true/false, dynamically calculated)	true
8.	canCancel	Boolean	M	n1	Cancellation eligibility flag (true/false, dynamically calculated)	false
9.	statusMessage	String	O	an..500	Status description or notes (max 500 chars, nullable)	Certificate approved by ARCCLA
10.	nextAction	String	O	an..200	Recommended next action (max 200 chars, nullable)	Process payment and download
11.	statusHistory	Array	O	-	Status change history (array, only if includeHistory=true)	[...]

Status History Element (when includeHistory=true):

12.	statusId	Integer	M	n..10	Status identifier (system defined)	2
13.	statusName	String	M	an..50	Status name (from predefined status list)	Submitted
14.	changedAt	DateTime	M	DATE	Status change timestamp (ISO 8601 format)	2025-11-13T14:20:00Z
15.	changedBy	String	O	an..100	User who changed status (username, nullable)	Customs_Broker_456
16.	remarks	String	O	an..500	Status change remarks (max 500 chars, nullable)	Submitted for ARCCLA review

15.2.3 Request and Response Samples

16 Response Codes and Error Handling

The response message will be different based on the type of API. In case of a valid and successful flow of an API, an assessment response message will be sent back synchronously as a response to the API, and in case of an invalid flow an invalid response will be returned to describe the schema validation error.

Below is the list of supported response codes supported, for error scenarios:

16.1 Standard HTTP Response Codes

S. No	HTTP Response Code	Description
1.	Success (200)	In case of valid request

2.	Bad Request (400)	In case of a bad request from the client side
3.	Unauthorized (401)	In case of wrong username and/or password
4.	API not found (404)	In case of wrong API endpoint
5.	Internal Server Error (500)	General server-side error

16.2 Custom Error Codes Provided by SINTECE (AGT)

These error codes are returned by the SINTECE system in API responses:

S. No	Error Code	Description	HTTP Status
1.	CARGO_E001	Invalid parameters	400
2.	CARGO_E002	No data found	404
3.	CARGO_E003	Access denied	403
4.	INCO_E001	Invalid format	400
5.	INCO_E002	Not applicable for cargo type	422
6.	INCO_E003	Inactive Incoterm	422
7.	COUNTRY_E001	Invalid format	400
8.	COUNTRY_E002	Not approved for trade	422
9.	COUNTRY_E003	Sanctioned country	403
10.	CARRIER_E001	Invalid parameters	400
11.	CARRIER_E002	No data found	404
12.	CARRIER_E003	Access denied	403
13.	BANK_E001	Invalid parameters	400
14.	BANK_E002	No data found	404
15.	BANK_E003	Access denied	403
16.	UNIT_E001	Invalid unit parameters	400

17.	UNIT_E002	Unit not found	404
18.	UNIT_E003	Unit conversion error	422
19.	CONTAINER_E001	Invalid parameters	400
20.	CONTAINER_E002	Container type not found	404
21.	CONTAINER_E003	Container type not applicable for cargo	422
22.	TRANSPORT_E001	Invalid parameters	400
23.	TRANSPORT_E002	Transport type not found	404
24.	TRANSPORT_E003	Transport type not applicable for cargo	422
25.	LOCATION_E001	Invalid country ID	400
26.	LOCATION_E002	Port not found	404
27.	LOCATION_E003	Port not operational for cargo	422
28.	GOODS_E001	Invalid classification parameters	400
29.	GOODS_E002	Classification not found	404
30.	GOODS_E003	Classification not applicable	422
31.	IMO_E001	Invalid IMO parameters	400
32.	IMO_E002	IMO code not found	404
33.	IMO_E003	Dangerous goods not permitted	422
34.	VESSEL_E001	Invalid vessel parameters	400
35.	VESSEL_E002	Vessel not found	404
36.	VESSEL_E003	Vessel not available for route	422
37.	CITY_E001	Invalid country ID	400

38.	CITY_E002	City not found	404
39.	CITY_E003	City not operational for trade	422
40.	CTNPORT_E001	Invalid port parameters	400
41.	CTNPORT_E002	Port not found	404
42.	CTNPORT_E003	Port not operational	422
43.	CTNATT_E001	Invalid CTN ID	400
44.	CTNATT_E002	No attachments found	404
45.	CTNATT_E003	File access denied	403
46.	CTNCRE_E001	BL number already exists	409
47.	CTNCRE_E002	Invalid reference data	400
48.	CTNCRE_E003	Insufficient permissions	403
49.	CTNCRE_E004	Invalid address information	422
50.	CTNCRE_E005	Invalid goods information	422
51.	CTNCRE_E006	Invalid container information	422
52.	CTNCRE_E007	Invalid tracking information	422
53.	CTNCRE_E008	Invalid attachment information	422
54.	CTNCRE_E009	NIF validation failed	422
55.	REQVISA_E001	Missing or incomplete Shipper Address	400
56.	REQVISA_E002	Missing or incomplete Forwarder Address	400
57.	REQVISA_E003	At least 1 attachment must be uploaded	400
58.	REQVISA_E004	CTN not found or not accessible	404

59.	DOCUP_E001	CTN not found	404
60.	DOCUP_E002	Invalid document type	400
61.	DOCUP_E003	File size exceeds limit	413
62.	DOCUP_E004	Invalid file type	415
63.	DOCUP_E005	Document upload failed	500
64.	DOCDEL_E001	CTN not found	404
65.	DOCDEL_E002	Document not found	404
66.	DOCDEL_E003	Cannot delete after visa submission	409
67.	DOCDEL_E004	Cannot delete required document	409
68.	DOCDEL_E005	Insufficient permissions	403
69.	NIF_E001	Invalid NIF format	400
70.	NIF_E002	NIF not found in ARCCLA system	404
71.	NIF_E003	NIF suspended or blacklisted	403
72.	NIF_E004	Entity name mismatch	400
73.	NIF_E005	NIF validation service unavailable	503
74.	NIF_E006	Invalid entity type for certificate	400
75.	INV_E001	Invoice not found	404
76.	INV_E002	Certificate not completed	400
77.	INV_E003	Access denied	403
78.	INV_E004	Invalid invoice format requested	400
79.	INV_E005	Export certificates do not support invoices	400

80.	INV_E006	Invoice generation in progress	202
81.	CONSIGNEE_E001	Invalid NIF number format	400
82.	CONSIGNEE_E002	Consignee not found	404
83.	CONSIGNEE_E003	Consignee not authorized for import	422
84.	TRACKING_E001	Invalid CTN ID	400
85.	TRACKING_E002	Tracking information not found	404
86.	TRACKING_E003	Tracking data inconsistent	422
87.	FILEUP_E001	File size exceeds maximum limit	413
88.	FILEUP_E002	File type not supported	415
89.	FILEUP_E003	File upload failed	500
90.	PARENTCTN_E001	Invalid CTN ID	400
91.	PARENTCTN_E002	No parent CTNs available	404
92.	PARENTCTN_E003	Access denied	403
93.	EXPORT_E001	Invalid export parameters	400
94.	EXPORT_E002	No data to export	404
95.	EXPORT_E003	Export generation failed	500
96.	STATUS_E001	CTN not found	404
97.	STATUS_E002	Access denied	403
98.	STATUS_E003	Invalid CTN ID format	400
99.	STATUS_E004	Status service temporarily unavailable	503

16.3 Error Response Structure

All error responses from SINTECE follow this JSON structure:

{

```
  "error": {
    "code": "CTNCRE_E001",
    "message": "BL number already exists",
    "severity": "ERROR",
    "field": "BL_number",
    "timestamp": "2025-11-28T10:30:00Z"
  }
}
```