

sensibilis

SOAP API Documentation

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1. Overview

This API uses WSSE (Web Services Security Extensions) for secure authentication without transmitting plain-text passwords. After authentication, you'll receive an API key for subsequent requests.

Key Features

- Secure WSSE authentication with password digest
- SOAP-based XML messaging
- Trade audit and plot management endpoints
- Risk assessment data retrieval

2. Getting Started

2.1 Registration Process

0. **Request Access:** Submit an access request via the Sensibilis Tool
1. **Receive Credentials:** You'll receive an email containing:
 - Base URL (e.g., `https://localhost:8082`)
 - Username
 - Password
2. **Generate WSSE Token:** Use your credentials to create authentication tokens
3. **Authenticate:** Exchange your WSSE token for an API key

3. Authentication

3.1 How WSSE Works

A WSSE token contains four components:

Component	Description
Username	Your registered username
PasswordDigest	SHA-1 hash of (Nonce + Created + Password), Base64-encoded
Nonce	A unique random value, Base64-encoded
Created	Current timestamp in ISO 8601 format (UTC)

3.2 Generating a WSSE Token

Formula

```
PasswordDigest = Base64(SHA1(Nonce_raw + Created + Password))
Nonce = Base64(Nonce_raw)
```

3.3 Authentication Endpoint

POST /auth/login

Authenticates a user and returns an API key.

Request Headers

```
X-WSSE: UsernameToken Username="testuser", PasswordDigest="*****", Nonce="*****",
Created="2025-11-19T10:30:00Z"
Content-Type: application/xml
```

Request Body (Optional)

```
<UsernameToken Username="testuser" Password="mypassword123"/>
```

cURL Example

```
curl -X POST https://localhost:8082/auth/wsse \
-H "X-WSSE: UsernameToken Username=\"testuser\", \
  PasswordDigest=\"Xk7mN3pQrs...\", \
  Nonce=\"aGVsbG93b3JsZA==\", \
  Created=\"2025-11-19T10:30:00Z\" \" \
-H "Content-Type: application/xml" \
-d '<UsernameToken Username="testuser" Password="mypassword123"/>'
```

Success Response (200 OK)

```
<AuthResponse>  
  <ApiKey>your-generated-api-key-here</ApiKey>  
</AuthResponse>
```

Error Responses

Status Code	Description
400 Bad Request	Invalid or malformed WSSE header
401 Unauthorized	Authentication failed (invalid credentials or expired token)
500 Internal Server Error	Failed to generate API key

4. SOAP API Endpoints

Authentication Required

- Header: X-API-Key: your-api-key
- Header: Authorization: Bearer your-api-key
- Query Parameter: ?apikey=your-api-key

Trade Audit Group

Endpoints for searching and checking trade audit data

4.1.1 Search Trade Audit Endpoint

POST /api/soap/trade-audit/search

Search for companies by number, country, protocol, or organization.

Request Parameters

companyNumber	string	Company registration number
country	string	Country code
protocolName	string	Protocol name
siteName	string (optional)	Site name
organisationName	string (optional)	Organisation name

Request Body (XML)

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header/>
  <soap:Body>
    <SearchRequest>
      <companyNumber>123456</companyNumber>
      <country>UK</country>
      <protocolName>ISO 9001</protocolName>
      <siteName>Main Office</siteName>
      <organisationName>Example Corp</organisationName>
    </SearchRequest>
  </soap:Body>
</soap:Envelope>
```

cURL Example

```
curl -X POST http://localhost:8082/api/soap/trade-audit/search \
-H "Content-Type: application/soap+xml; charset=utf-8" \
-H "X-API-Key: your-api-key" \
-d '<soap:Envelope>...</soap:Envelope>'
```

Success Response (200 OK)

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header/>
  <soap:Body>
    <SearchResponse>
      <result>success</result>
      <data><!-- Search results here --></data>
    </SearchResponse>
  </soap:Body>
</soap:Envelope>
```

4.1.2 Check Data Existence

POST /api/soap/trade-audit/check

Check if data exists for given search parameters without returning the full dataset.

Parameters

Same as Trade Audit Search endpoint

SOAP Request Body

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <SearchRequest>
      <companyNumber>1756789</companyNumber>
      <country>UK</country>
      <protocolName>Protocol1</protocolName>
      <siteName>Optional Site Name</siteName>
      <organisationName>Optional Organisation Name</organisationName>
    </SearchRequest>
  </soap:Body>
</soap:Envelope>
```

SOAP Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <CheckResponse>
      <result>success</result>
      <hasData>true</hasData>
    </CheckResponse>
  </soap:Body>
</soap:Envelope>
```

4.1.3 Check Updates

POST /api/soap/trade-audit/check-updates

Check for updates to trade audits within a specified date range for given countries, registration numbers, and protocols.

Parameters

startDate	string (required)	Start date in YYYY-MM-DD format
endDate	string (required)	End date in YYYY-MM-DD format
country	string (required)	One or more country codes
registrationNumber	string (required)	One or more registration numbers
protocolName	string (required)	One or more protocol names

SOAP Request Body

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <CheckUpdatesRequest>
      <startDate>2024-01-01</startDate>
      <endDate>2024-12-31</endDate>
      <country>UK</country>
      <country>US</country>
      <registrationNumber>1756789</registrationNumber>
      <registrationNumber>9876543</registrationNumber>
      <protocolName>Protocol1</protocolName>
      <protocolName>Protocol2</protocolName>
    </CheckUpdatesRequest>
  </soap:Body>
</soap:Envelope>
```

SOAP Response

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <CheckUpdatesResponse>
      <result>success</result>
      <data>[JSON data from REST API]</data>
    </CheckUpdatesResponse>
  </soap:Body>
</soap:Envelope>
```

Plots Group

Endpoints for plot search and risk assessment

4.2.1 Plots Search Endpoint

POST /api/soap/plots/search

Search for plots by owner, operator, country, or plot name.

Request Parameters

ownerOrganisationName	string	Owner organisation name
countryCode	string	Country code
operatorOrganisationName	string	Operator organisation name
plotName	string	Plot name

Request Body (XML)

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header/>
  <soap:Body>
    <PlotsSearchRequest>
      <ownerOrganisationName>Trador org</ownerOrganisationName>
      <countryCode>UK</countryCode>
      <operatorOrganisationName>Trador org</operatorOrganisationName>
      <plotName>New plot test</plotName>
    </PlotsSearchRequest>
  </soap:Body>
</soap:Envelope>
```

Success Response (200 OK)

```
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
  <Header/>
  <Body>
    <PlotsSearchResponse>
      <result>success</result>
      <data>[ {...plot data with risk_assessments...} ]</data>
    </PlotsSearchResponse>
  </Body>
</Envelope>
```

4.2.2 Plot Risk Assessment Endpoint

POST /api/soap/plots/risk-assessment

Retrieve risk assessment details for a specific plot.

Request Parameters

plotName	string	Plot name
countryCode	string	Country code
ownerOrganisationName	string (optional)	Owner organisation name
riskAssessmentId	integer	Risk assessment ID

Request Body (XML)

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header/>
  <soap:Body>
    <PlotRiskAssessmentRequest>
      <plotName>new test</plotName>
      <countryCode>Zambia</countryCode>
      <ownerOrganisationName>Global Forest Watch</ownerOrganisationName>
      <riskAssessmentId>1</riskAssessmentId>
    </PlotRiskAssessmentRequest>
  </soap:Body>
</soap:Envelope>
```

Success Response (200 OK)

```
<Envelope xmlns="http://schemas.xmlsoap.org/soap/envelope/">
  <Header/>
  <Body>
    <PlotRiskAssessmentResponse>
      <r>success</r>
      <data>[ {...risk assessment details...} ]</data>
    </PlotRiskAssessmentResponse>
  </Body>
</Envelope>
```

5. Best Practices

Security

- Never log or expose your password or API key in client-side code
- Regenerate nonces for each request
- Use HTTPS in production environments
- Store API keys securely (environment variables, secret management systems)
- Implement token expiration checks if applicable

6. Troubleshooting

Issue	Solution
401 Unauthorized	Verify credentials, check WSSE token generation, ensure timestamp is recent
400 Bad Request	Validate WSSE header format, check for special characters in username/password
403 Forbidden	Verify API key is valid and has necessary permissions
500 Internal Server Error	Check request body format, contact support if issue persists

7. Support

For additional assistance:

- Check request/response logs
- Verify all parameters match expected formats
- Contact technical support with request details and error messages