

How to Screen Suppliers Using the D&B Direct 2.0 API for REST Developers

This guide will explain the steps involved in utilizing the D&B Direct API for compliance check organizations and/or individuals.

Here is a checklist of the items needed to successfully register a subject and retrieve any resulting alerts:

Credentials (Sandbox, Trial or Production)
Authentication Token
Product Code = Service Level
Subject Details
Endpoint - New Registration
Subject ID
Endpoint - Retrieve Results

Step 1. Obtaining Credentials

The Compliance Check Service requires a separate set of credentials from all other D&B Direct 2.0 API, and are D&B issued for all environments. Please contact a D&B sales representative for further information.

Step 2. Authentication

D&B Direct API calls will require an unexpired authentication token, which is obtained via a POST call to the authentication service.

```
POST https://maxcvservices.dnb.com/rest/Authentication
x-dnb-user: MyUsername
x-dnb-pwd: MyPassword
```

A successful call to this service will return an authentication token that will be valid for eight hours.

```
HTTP/1.1 200 OK
Date: Wed, 09 Oct 2013 18:47:22 GMT
Authorization: <MyToken>
```

```
x-dnb-user: MyUsername  
x-dnb-pwd: MyPassword
```

The authentication token should be retained and then submitted on subsequent API calls. Receiving a SC001 response code is an indication that the authentication token has expired. Applications should be written to detect this response code and request a new token before proceeding to make additional API requests.

More details: <http://developer.dnb.com/docs/2.0/common/authentication-process#REST>

Step 3. Selecting a Service Level

In addition to the data supplied by the customer, D&B information can be appended prior to initiating the screen process. Options are available to incrementally append company name, trade styles and CEO names; principal names and shareholders; and direct line entities between the requested company and the ultimate parent (also referred to as upward linkage).

Customers may choose to broaden the scope of the screening process from a basic WLT/PEP/IRC screening, to one based on the complete list of available sources (including adverse media). Customers may also elect to have skilled analysts conduct review of the screening results to eliminate false positives before returning an outcome.

Please contact a D&B sales representative to obtain the product code(s) entitled for a specific Customer contract.

Step 4. Subject Details

A company (or individual) name, primary entity address (street, city, state, postal code and country) and the appropriate product code must be provided for a Compliance ✓ registration. Customers are encouraged to also provide any known DBA (Doing Business As) or alternate business names and principals of the business to ensure an accurate and complete screening.

Step 5. Registering the Subject

The endpoint for registering subjects for D&B Compliance Check process are prepared and transmitted as POST calls. The product code(s) provided by the D&B representative should be passed in the DNBProductID parameter.

(!) Important Note: HACKATHON DEVELOPERS: Please pass a unique value (e.g. team name or number) in the CustomerReferenceText parameter. This will be needed for successful ListComplianceSubjects call.

Here is an example of a call to the Compliance ✓ Screening feature:

```
POST https://maxcvservices.dnb.com/V1.0/compliancecheck/subjects HTTP
/1.1
```

```
Accept-Encoding: gzip,deflate
```

```
Content-Type: application/json
```

```
Authorization: <MyToken>
```

```
{ "com$RegisterSubjectRequest": {
  "@xmlns$com": "http://services.dnb.com/ComplianceCheckServiceV2.0",
  "@ServiceVersionNumber": "?",
  "TransactionDetail": {
    "ApplicationTransactionID": "0412199",
    "TransactionTimestamp": "2013-04-12T10:03:27.397-04:00",
    "SubmittingOfficeID": "334"
  },
  "RegisterSubjectRequestDetail": {
    "InquiryDetail": {
      "SubjectName": "CTS",
      "DUNSNumber": "804735132",
      "ApplicationSubjectID": "AppID_001",
      "Principal": {
        "NamePrefixText": "Mr.",
        "PrincipalName": {
          "@NameIdentificationNumber": "1",
          "$": "Kevin J Hunt"
        },
        "JobTitle": { "JobTitleText": {
          "$": "Sec-treas"
        }
      }
    },
    "CountryISOAlpha2Code": "US"
  },
  "Shareholder": {
    "NamePrefixText": "Mike",
    "ShareholderName": {
      "$": "Mike"
    },
    "ShareholdingPercentage": "5",
    "CountryISOAlpha2Code": "CA"
  },
  "PrimaryAddress": {
    "StreetAddressLine": {
      "LineText": "492 KOLLER STREET"
    }
  },

```

```
    "PrimaryTownName": "San Francisco",
    "PostalCode": "94110",
    "CountryISOAlpha2Code": "US",
    "TerritoryName": "CA"
  },
  "EntityTypeText": "Organization"
},
"RegisterSubjectSpecification": {
  "DNBProductID": "LVL3_FULGRD_ANLST",
  "DUNSInvestigationRequiredIndicator": "true",
  "OptOutOnDataUnavailableIndicator": "true",
  "MatchSpecification": {"ConfidenceLowerLevelThresholdValue": "4
"}
},
  "InquiryReferenceDetail": {"CustomerReferenceText": "Registratio
n-Gorman", "CustomerBillingEndorsementText": "Registration-Gorman"}
}
}}
```

Step 6. Capture the Subject ID

It is critical to capture the "SubjectID" value from the RegisterSubject() response. Retrieving results using the SubjectID is currently the only method available.

Here is a successful response:

```
{"RegisterSubjectResponse": {
  "TransactionDetail": {"TransactionTimestamp": "2013-10-18T10:45:29
.448-04:00"},
  "TransactionResult": {
    "SeverityText": "Information",
    "ResultID": "CM000",
    "ResultText": "Success",
    "ResultMessage": [{"ResultDescription": "Compliance API Registr
ation is Created Successfully"}]
  },
  "RegisterSubjectResponseDetail": {"ComplianceSubject": {"SubjectI
D": "1012107"}}
}}
```

As an alternative to maintaining a list of valid SubjectID's, a ListComplianceSubjects() operation is available.

(!) Important Note: HACKATHON DEVELOPERS: Please pass the unique value (used in the RegisterSubject) in the CustomerReferenceText parameter.

Here is a sample request:

```
GET http://services-ext.dnb.com/V1.0/compliancecheck/subjects?SortDir
ectionText=Ascending&CandidateDisplayStartSequenceNumber=1&CandidateP
erPageMaximumQuantity=10
Authorization: <My Token>
```

Step 7. Check for Results

Here's an example of retrieving compliance check results:

```
GET https://maxcvservices.dnb.com/V1.0/compliancecheck/subjects/10121
07?ComplianceDataModuleID=ALERTS
Authorization: <MyToken>
```

For screening requests that do not include an analyst review, results can be retrieved within an hour of submission. Analyst reviews are typically completed within 2 to 3 business days. In either case, the retrieval operation may be polled for a completion status of the request.

During the period after a successful registration and the availability of results, this operation will return a CM000 response code and the ResultText will equal "RESPONSE IS STILL PROCESSING."

```
{
  "GetSubjectComplianceDataResponse": {
    "TransactionDetail": {
      "ApplicationTransactionID": "164534658",
      "ServiceTransactionID": "12345",
      "TransactionTimestamp": "2013-10-30T16:45:38.192-04:00"
    },
    "TransactionResult": {
      "SeverityText": "Information",
      "ResultID": "CM000",
      "ResultText": "RESPONSE IS STILL PROCESSING",
      "ResultText": "The actual content of the last received response"
    }
  }
}
```

Otherwise, one of the D&B Direct standard response codes will be returned. Refer to the Compliance Check materials in the API Reference for a list of applicable response codes and their meanings.

API Reference: <http://developer.dnb.com/docs>

Step 7. Processing the JSON Responses

The D&B Direct REST implementation uses the BadgerFish approach for JSON with some minor variations.

More details: <http://developer.dnb.com/docs/2.0/common/badgerfish>

Next Steps

This guide applies to the following service(s):

- Compliance Check Service

Please refer to the D&B Direct 2.0 API Reference documentation materials for additional details.

More details: <http://developer.dnb.com/docs/2.0>

Product Support

If you need assistance obtaining D&B Direct products, or have questions regarding the REST implementation of D&B Direct, please contact the D&B Direct Customer Support team at (866) 465-3829 or submit an online request for assistance.

Support form: <http://dnbus.force.com/support?prod=DNBDirect>

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