

# How to Order Reports 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 obtaining D&B data company and country reports.

Here is a checklist of the items needed to successfully retrieve a report:

- Credentials (Sandbox, Trial or Production)
- Authentication Token
- D-U-N-S Number (for company reports)
- Country Code
- Order Reason Code (for companies domiciled in Germany)
- Product Code
- Product Service
- Service Version
- Endpoint

## Step 1. Obtaining Credentials

There are two methods for obtaining and activating API credentials for D&B Direct 2.0: self-service (Sandbox) or D&B issued (Trial/Production). For Sandbox (test environment) access, please complete the online form and an activation email will be delivered. For Trial or Production access, please contact a D&B sales representative.

More details: <http://developer.dnb.com/docs/2.0/common/obtaining-credentials>

Sandbox sign-up: <http://developer.dnb.com/register-v2>

## 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. Finding the correct D-U-N-S Number

This step is not required for country-specific reports.

D&B Direct product requests will require a valid D&B D-U-N-S Number (a unique 9-digit number identifying a business on which a D&B Credit Report has been generated). To perform a organization name lookup, please refer to the On-Demand Entity Identification feature.

More details: <http://developer.dnb.com/docs/2.0/common/duns-number>

D-U-N-S Number lookup: <http://developer.dnb.com/docs/2.0/company/4.0/match>

## Step 4. Capturing the corresponding Country Code

While having the country code is not a requirement for order products, it does improve the efficiency and response time of the API calls. This information is returned by the On-Demand Entity Identification feature and should be retained for subsequent product requests.

## Step 5. Selecting an Order Reason Code

When requesting D&B data products for organizations domiciled in Germany, the API will require a valid order reason code. For all other organizations, this input parameter is optional. Possible values include: 6332 [Credit Decision]; 6333 [Assessment of credit solvency for intended business connection]; 6334 [Assessment of credit solvency for ongoing business connection]; 6335 [Debt Collection]; 6336 [Commercial Credit Insurance]; 6337 [Insurance Contract]; 6338 [Leasing Agreement] and 6339 [Rental Agreement].

## Step 6. Getting the Correct Product Code, Service and Version

The Product Code, Service and Version are related items that are necessary to construct a valid API report request. D&B Direct reports are assigned a unique alpha-numeric code, and are delivered by one of several API web services. Knowing the service, will aid in obtaining the service version and correct endpoint.

Here is a list of the reports available from D&B Direct 2.0:

Product Code	Title	Service	Version
BBR	Business Background Report	Report Product Service	V3.0
BIR	Business Information Report	Report Product Service	V3.0
COMPR	Comprehensive Report	Report Product Service	V3.0
CPTR	Compact Report	Report Product Service	V3.0
CRLR	Country Risk Insight Report	Report Product Service	V3.0
CRR	Country Risk Report	Report Product Service	V3.0
MKT_ANL_RP	Market Analysis Report	Report Product Service	V3.0

More details: <http://developer.dnb.com/docs/2.0/report/3.0/company-reports>

AND <http://developer.dnb.com/docs/2.0/report/3.0/country-reports>

## Step 8. Checking Availability

The D&B Direct API includes an operation for checking the availability of a product or report for a given organization. This is an optional step that provides basic details about the product, if it is available. Here is an example for D-U-N-S Number 804-735-132:

```
GET https://maxcvservices.dnb.com/V2.1/organizations/804735132/products?CountryISOAlpha2Code=US
Authorization: <My Token>
```

To refine the call for a specific product add &DNBProductID={code} to the request.

Look for these two indicators for each available Product Code in the response: DeliverableProductIndicator and SufficientDataAvailableIndicator.

More details: <http://developer.dnb.com/docs/2.0/productcatalog/2.1/availability>

## Step 9. Preparing the Endpoint

The endpoints for ordering D&B Direct products are very similar, but the service version plays a significant role in product requests. Here is an example of a call to retrieve the Business Information Report for D-U-N-S Number 804-735-132:

```
GET https://maxcvservices.dnb.com/V3.0/organizations/804735132/products/BIR?ProductFormatPreferenceCode=15106
Authorization: <My Token>
```

This report is delivered by the Report Product service, however, there is no mention of the service in the endpoint. Rather, the version component of the endpoint is service specific. The D&B Direct API uses the combination of the Product Code and Service Version to direct the request to the appropriate service.

Successful service requests will return a CM000 response code. Otherwise, one of the D&B Direct standard response codes will be returned. Refer to the product page in the API Reference for a list of applicable response codes and their meanings.

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

## Step 10. Processing the JSON Response

Text reports are returned in a Base64 encoded format within the Report Content/Data tags. All other formats are returned using the Message Transmission Optimization Mechanism (MTOM) method.

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):

- Report Product 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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