

How to Order Products 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 products.

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

Credentials (Sandbox, Trial or Production)
Authentication Token
D-U-N-S Number
Country Code
Order Reason Code (for companies domiciled in Germany)
Principal ID (for Contact products)
Subject ID (for SBRI products)
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

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. Finding the Principal ID or Subject ID

The D&B Direct products that provide data for company principals and small businesses require an additional input parameter. Using the Search & Build-a-List - Contacts (Plus Email Lookup) feature, a Principal ID can be obtained from a name or email search. This Principal ID can then be submitted to a People request. They are also returned by the Detailed Company Profile and Alternative Detailed Company Profile data layers.

Similarly, using the SBRI option of the On-Demand Entity Identification feature, a Subject ID can be obtained for a small business. This Subject ID can then be submitted to a Small Business Risk Insight request.

Principal ID lookup: <http://developer.dnb.com/docs/2.0/entitylist/6.0/findcontact>

Subject ID lookup: <http://developer.dnb.com/docs/2.0/company/4.0/match>

Step 7. 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 product request. D&B Direct products 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 products available from D&B Direct 2.0:

Product Code	Title	Service	Version
CNTCT	People - Standard	Contact Product Service	V3.0
CNTCT_PLUS	People - Enhanced	Contact Product Service	V3.0
DCP_ALT_STD	Alternative Detailed Company Profile - Standard	Firmographic Product Service	V3.0
DCP_ALT_ENH	Alternative Detailed Company Profile - Enhanced	Firmographic Product Service	V3.0
DCP_ALT_PREM	Alternative Detailed Company Profile - Premium	Firmographic Product Service	V3.0
DCP_STD	Detailed Company Profile - Standard	Firmographic Product Service	V3.0
DCP_ENH	Detailed Company Profile - Enhanced	Firmographic Product Service	V3.0
DCP_PREM	Detailed Company Profile - Premium	Firmographic Product Service	V3.0
DVR_STD	Diversity Indicators - Standard	Firmographic Product Service	V3.0
DVR_ENH	Diversity Indicators - Enhanced	Firmographic Product Service	V3.0
FIN_HGLT	Financial Highlights	Financial Product Service	V3.0
FIN_ST_PLUS	Financial Statements	Financial Product Service	V3.0
LNK_UPF	Corporate Linkage - Standard	Linkage Product Service	V3.1
LNK_FF	Corporate Linkage - Enhanced	Linkage Product Service	V3.1
NEWS_MDA	News and Social Media	News and Media Service	V3.0
PAC_PLUS	USA Patriot Act Plus	Firmographic Product Service	V2.1
PBPR_STD	Predictive Bankruptcy & Payment Risk - Standard	Assessment Product Service	V3.0
PBPR_ENH	Predictive Bankruptcy & Payment Risk - Enhanced	Assessment Product Service	V3.0
PBR_FSS_V7.1	Predictive Bankruptcy Risk - D&B Financial Stress Score (FSS) V7.1	Assessment Product Service	V3.0

Product Code	Title	Service	Version
PBR_FSS_V6.0	Predictive Bankruptcy Risk - D&B Financial Stress Score (FSS) V6.0	Assessment Product Service	V3.0
PBR_FSS_V5.0	Predictive Bankruptcy Risk - D&B Financial Stress Score (FSS) V5.0	Assessment Product Service	V3.0
PGPR_EMMA	Predictive Global Payment Risk - D&B Emerging Market Mediation Alert Score (EMMA)	Assessment Product Service	V3.0
PI_DTL	Payment Information - Detail	Trade Detail Product Service	V3.0
PIAP_STD	Payment Information & Paydex (Rating) - Detail - Standard	Trade Detail Product Service	V3.0
PIAP_ENH	Payment Information & Paydex (Rating) - Detail - Enhanced	Trade Detail Product Service	V3.0
PIAP_PREM	Payment Information & Paydex (Rating) - Detail - Premium	Trade Detail Product Service	V3.0
PPR_CCS_V9	Predictive Payment Risk - D&B Commercial Credit Score (CCS) V9.0	Assessment Product Service	V3.0
PPR_CCS_V8	Predictive Payment Risk - D&B Commercial Credit Score (CCS) V8.0	Assessment Product Service	V3.0
PPR_CCS_V7	Predictive Payment Risk - D&B Commercial Credit Score (CCS) V7.0	Assessment Product Service	V3.0
PUBREC_BR	Business Registrations	Public Record Service	V3.0
PUBREC_DTLS	Suits, Liens, Judgments & Bankruptcies - Detail	Public Record Service	V3.0
PUBREC_JDG	Judgments	Public Record Service	V3.0
PUBREC_LIENS	Liens	Public Record Service	V3.0
PUBREC_OS	Corporate Entity Type & Ownership	Public Record Service	V3.0
PUBREC_SUITS	Suits	Public Record Service	V3.0
PUBREC_UCC	UCC Filings	Public Record Service	V3.0
RTNG_TRND	D&B Rating & Trend	Assessment Product Service	V3.0
SBCRP	Small Business Company & Owner Risk Profile	Assessment Product Service	V3.0
SBRI_STD	Small Business Risk Insight - Standard	SBRI Product Service	V3.2
SBRI_ENH	Small Business Risk Insight - Enhanced	SBRI Product Service	V3.2
SER	D&B Supplier Evaluation Risk Rating	Assessment Product Service	V3.0
TLP	D&B Total Loss Predictor	Assessment Product Service	V3.0
VIAB_RAT	D&B Viability Rating	Assessment Product Service	V3.0

Products omitted from the preceding table are not D-U-N-S Number based and will be addressed in separate guides.

More details: <http://developer.dnb.com/docs/2.0/products-and-features>

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 Predictive Bankruptcy & Payment Risk - Enhanced product for D-U-N-S Number 804-735-132:

```
GET https://maxcvservices.dnb.com/V3.0/organizations/804735132/products/PBPR_ENH
Authorization: <My Token>
```

This product is delivered by the Assessment 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

Included with every product response are a set of standard elements that provide general (name and address) about the organization requested.

Standard Elements: <http://developer.dnb.com/docs/2.0/common/standard-elements>

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):

- Assessment Product Service
- Contact Product Service

- Custom Product Service
- Financial Product Service
- Firmographic Product Service
- Linkage Product Service
- News and Media Service
- Public Record Service
- SBRI Product Service
- Trade Detail 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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