

How to Build Customer & Contact Lists 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 building lists of prospective customers -- either at the organization or individual level.

Here is a checklist of the items needed to successfully compile a list:

Credentials (Sandbox, Trial or Production) Authentication Token Objective: Companies or Contacts Type of Search: Basic or Advanced Filtering Options Pagination Settings 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. Selecting an Operation

D&B Direct provides Basic and Advanced options for both the Search & Build-a-List - Company and Search & Build-a-List - Contacts (Plus Email Lookup) features.

Basic searches are limited to keywords, while Advanced searches provide an extensive list of filtering criteria.

	Company Lists	Contact Lists
Service	Entity List Service	Entity List Service
Operation	FindCompany()	FindContact()

Step 4. Filtering Results (Advanced Only)

Here is a brief overview of the types of criteria supported by these operations. Refer to the feature documentation for additional details and the actual input parameter names.

Geographic Proximity: Any combination of longitude+latitude coordinates or postal code, telephone number (full or partial) or street address.

Company Information: Filter for companies by location type, D&B Prescreen Score, ownership type, stock ticker and exchange, D-U-N-S Number, legal status, year of founding, subsidiary status, diversity status, home-based status, franchise status and foreign trade.

Industry: Filter for companies by Hoover's Industries, SIC Codes, and NAIC Codes, either by a specific industry code or range.

Company Size: Filter for companies by sales, market cap, employees and facility size.

Financial Information: filter for companies by net income, assets, fiscal year end, auditors, and rankings/indices.

IPO Data: Filter for companies by IPO date, offer amount, price range and underwriters.

People: Filter for people by job function, salary, bonus, total compensation and age. (Contact Lists only)

Email: Filter for people by email address. (Contact Lists only)

Company Criteria: <http://developer.dnb.com/docs/2.0/entitylist/6.0/findcompany>

Contact Criteria: <http://developer.dnb.com/docs/2.0/entitylist/6.0/findcontact>

Step 5. Pagination

The maximum number of records this feature will return on a single request is 10,000. The search maximum limit can be lowered using the CandidateMaximumQuantity parameter.

Options exist to designate the maximum number of records per request (CandidatePerPageMaximumQuantity), and the starting row number (CandidateDisplayStartSequenceNumber).

Step 6. Preparing the Endpoint

The endpoints for resolving entities are similar. The following table identifies the parameter which triggers each search operation.

	Company Lists	Contact Lists
Trigger	&findcompany=true	&findcontact=true
Basic	&SearchModeDescription=Basic	
Advanced	&SearchModeDescription=Advanced	

Here is an example of a call to the Search & Build-a-List - Company - Basic operation for a fictitious company called Gorman Manufacturing:

```
GET https://maxcvservices.dnb.com/V6.0/organizations?KeywordText=Gorman%20Manufacturing&SearchModeDescription=Basic&findcompany=true
Authorization: <My Token>
```

Here is an example of a call to the Search & Build-a-List - Contacts (Plus Email Lookup) - Basic operation for anyone named Kevin at a fictitious company called Gorman Manufacturing:

```
GET https://maxcvservices.dnb.com/V6.0/organizations?findcontact=true&KeywordText=Gorman%20Manufacturing&KeywordContactText=Kevin&SearchMo
```

```
deDescription=Basic  
Authorization: <My Token>
```

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 7. Processing the JSON Response

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):

- Entity List 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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