
Searchbug API Services

Implementation Guide

APIs to Identify Phone Number (Line Type, Carrier, Reachable, DNC, Caller ID)

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Introduction

Searchbug Phone ID APIs allow to determine phone line type – landline (fixed line), cell phone (wireless) or VoIP (Voice over IP). In addition to line type, results typically include carrier (Phone Company) name and OCN number, location, local calling area and time zone. SMS email address may be available information may be available for cell phone numbers. The Advanced and Reachable APIs also report if phone number was ported to a different carrier.

Reachable Phone Number API allows you to determine if phone number is active or inactive (disconnected). Some APIs check if number is on US Federal Do Not Call list.

Caller ID (CNAM, Calling NAME) APIs return 15-character name associated with the phone number.

Only Standard Phone ID API works for US and Canadian phone numbers. All other APIs and VoIP data are for US only. The information is obtained from North American Numbering Plan Administration, Canadian Numbering Administrator, specialized telecommunication databases and live sources, as well as and Searchbug proprietary data and methods.

The Standard Phone ID API delivers 95%+ accuracy in determining line type. However, this API only reports the original carrier and does not include a local number portability check. Data is updated monthly.

The phone type and carrier identified by the Advanced Phone ID API brings the most current (as of today) information on actual carrier and phone type. This API checks if phone number has been ported to a different carrier.

Select API that meets your needs:

	Standard	Advanced	Adv + DNC	Adv + Call ID	Reachable	Complete	DNC	Caller ID
	api_loc2	api_lnp2	api_lnd	api_lnc	api_atn2	api_atx	api_dnc	api_cnam
Original Line Type	X							
Original Carrier	X							
Current Line Type		X	X	X	X	X		
Current Carrier		X	X	X	X	X		
LNP Port check		X	X	X	X	X		
SMS email		X	X	X	X	X		
OCN	X	X	X	X	X	X		
Location	X	X	X	X	X	X		
State	X	X	X	X	X	X		
Time zone	X	X	X	X	X	X		
Line Status					X	X		
DNC List Check			X		X	X	X	
Caller ID				X		X		X
PRICE FACTOR	1	1.5	3	7	5	10	2	6

Overview

Searchbug has deployed the Reachable Phone Number API service as an XML/JSON over HTTP Service. The client's calling system communicates with Searchbug by sending inquiry data using URL over HTTP or HTTPS protocol. Searchbug processes the data, and then the Searchbug API service transforms the data into XML or JSON format and returns the data to the client's calling system.

You can seamlessly integrate Searchbug data with your web site, intranet, network, customer database or any other system.

Search Fees and Account Setup

Please make sure your account is set up correctly before you start using these APIs.

- SearchBug **business** account with a **prepaid payment plan** is required.
- Search fee is deducted from your account balance each time you make a query.
- Prepaid balance is automatically recharged when your funds run low.

Sending Request (one phone number a time) via HTTP GET

The request should be sent to Searchbug using following URL format over HTTP or HTTPS

```
http(s)://data.Searchbug.com/api/search.aspx?  
CO_CODE=<AccountID>&PASS=<Password>&TYPE=<APItype>&F=<Phone>  
&FORMAT=<Format>
```

<AccountID> will be provided to you when you create Searchbug account. If you are already a member, you can find your ID in My Account area after you login to Searchbug

<Password> will be selected by you during the signup. You can change password anytime. It is the same password you use to login to Searchbug website. Do not use these symbols in your password: # % ? ^ & +

<APItype> API type:

- **api_loc2** – Standard Phone ID
- **api_inp2** – Advanced Phone ID
- **api_ind** – Advanced Phone ID + DNC
- **api_inc** – Advanced Phone ID + Caller ID
- **api_atn2** – Reachable Phone Number + DNC
- **api_atc** – Reachable Phone Number + Caller ID
- **api_atx** – Complete (Reachable Phone Number + DNC + Caller ID)
- **api_dnc** – Do Not Call List (only)
- **api_cnam** – Caller ID / CNAM (only)

<Phone> can be in any format. It may contain spaces, dashes, parenthesis or period.
Examples: 212-773-1234, 2127731234, 212.773.1234, (212) 773-1234.

If phone number contains more than 10 digits, first 10 digits will be used.
Example: you supply 2127731234x567 we use 2127731234.

If phone number contains 1 as the first digit, it will be considered the US Country Code and stripped.
Example: you supply 1-212-773-1234 we use 2127731234.

You can only send one phone number at a time with each GET request

<Format> is an optional field. The default is XML. To get results in JSON format, pass **&FORMAT=JSON**

Examples of request URLs (one line, no breaks, no spaces):

```
https://data.Searchbug.com/api/search.aspx?  
CO_CODE=34567&PASS=H4z865i3$1&TYPE=api_loc2&F=2127731234
```

```
http://data.Searchbug.com/api/search.aspx?  
CO_CODE=34567&PASS=H4z865i3$1&TYPE=api_dnc&F=212-773-1234
```

```
https://data.Searchbug.com/api/search.aspx?  
CO_CODE=34567&PASS=H4z865i3$1&TYPE=api_atn2&F=(212)773-1234&FORMAT=JSON
```

Sending Request via POST up to 1,000 phone numbers a time

This option is ONLY available for the Standard API.

The request should be sent to Searchbug using following URL format over HTTP or HTTPS

```
http(s)://data.Searchbug.com/api/search.aspx?  
CO_CODE=<AccountID>&PASS=<Password>&TYPE=api_loc_post&FORMAT=<Format>
```

<AccountID> will be automatically generated when you create Searchbug account. If you are already a member, you can find your ID in My Account area after you login to Searchbug

<Password> will be selected by you during the signup. You can change password anytime. It is the same password you use to login to Searchbug website. It can a password of any user on the account. Please make sure that password does not contain #, ?, & or = characters that may affect reading the URL parameters correctly

Use **api_loc_post** TYPE for sending multiple phone numbers to the Standard Phone ID API.

Instead of sending phone number on the query string `&F=2127731234`, send phone numbers in a **POST request**. The variable for each phone number should also be "F". Post requests can come in the body or the header.

<Format> is an optional field. To get results in JSON format, pass `&FORMAT=JSON`

Receiving Results

These APIs except **api_dnc** and **api_cnam** return results in the same format

XML Results of Advanced Phone ID + DNC (api_Ind)

```
<RESULTS>
  <PHONE>
    <NUMBER>9283997588</NUMBER>
    <NUMBER2>(928) 399-7588</NUMBER2>
    <CNAM/>
    <STATUS/>
    <DNC>NO</DNC>
    <TYPE>LANDLINE</TYPE>
    <VOIP>NO</VOIP>
    <CARRIER>NEUTRAL TANDEM-ILLINOIS - IL</CARRIER>
    <OCN>505B</OCN>
    <PORTED>YES</PORTED>
    <SMSEMAIL/>
    <STATE>AZ</STATE>
    <LOCATION>SEDONA</LOCATION>
    <LATA>Phoenix AZ (plus Winterhvn CA, Spirit Mnt NV, Glen Cyn, UT)</LATA>
    <TIMEZONE>MOUNTAIN STANDARD TIME (MST)</TIMEZONE>
    <TIMENOW>3/25/2021 10:27:41 PM</TIMENOW>
    <CODE>LRN</CODE>
  </PHONE>
  <STATS>
    <DATE>03/25/2021</DATE>
    <DAILY>6</DAILY>
    <MONTHLY>6</MONTHLY>
    <RATE>0.03</RATE>
    <BALANCE>599.5749</BALANCE>
  </STATS>
</RESULTS>
```

JSON Results of Advanced Phone ID API (api_Inp)

```
{
  Status: "Success",
  - Data: {
    - PHONE: {
      NUMBER: "9283997588",
      NUMBER2: "(928) 399-7588",
      CNAM: null,
      STATUS: null,
      DNC: null,
      TYPE: "LANDLINE",
      VOIP: "NO",
      CARRIER: "NEUTRAL TANDEM-ILLINOIS - IL",
      OCN: "505B",
      PORTED: "YES",
      SMSEMAIL: null,
      STATE: "AZ",
      LOCATION: "SEDONA",
      LATA: "Phoenix AZ (plus Winterhvn CA, Spirit Mnt NV, Glen Cyn, UT)",
      TIMEZONE: "MOUNTAIN STANDARD TIME (MST)",
      TIMENOW: "3/25/2021 10:36:26 PM",
      CODE: "LRN"
    },
    - STATS: {
      DATE: "03/25/2021",
      DAILY: "3",
      MONTHLY: "3",
      RATE: "0.015",
      BALANCE: "599.5249"
    }
  },
  Error: null
}
```

```
<RESULTS>
  <PHONE>
    <NUMBER>9283997589</NUMBER>
    <NUMBER2>(928) 399-7589</NUMBER2>
    <DNC>NO</DNC>
    <CODE>TLX</CODE>
  </PHONE>
  <STATS>
    <DATE>03/25/2021</DATE>
    <DAILY>2</DAILY>
    <MONTHLY>2</MONTHLY>
    <RATE>0.02</RATE>
    <BALANCE>599.0048</BALANCE>
  </STATS>
</RESULTS>
```

Example. DNC API – JSON

```
{
  Status: "Success",
  - Data: {
    - PHONE: {
      NUMBER: "9283997589",
      NUMBER2: "(928) 399-7589",
      DNC: "NO",
      CODE: "TLX"
    },
    - STATS: {
      DATE: "03/25/2021",
      DAILY: "3",
      MONTHLY: "3",
      RATE: "0.02",
      BALANCE: "598.9848"
    }
  },
  Error: null
}
```


Example. Caller API – XML

```
<RESULTS>
  <PHONE>
    <NUMBER>9283997589</NUMBER>
    <NUMBER2>(928) 399-7589</NUMBER2>
    <CNAM>STEWART TITLE</CNAM>
    <CODE>OPN</CODE>
  </PHONE>
  <STATS>
    <DATE>03/25/2021</DATE>
    <DAILY>2</DAILY>
    <MONTHLY>2</MONTHLY>
    <RATE>0.06</RATE>
    <BALANCE>598.9648</BALANCE>
  </STATS>
</RESULTS>
```

Example. Caller API – JSON

```
{
  Status: "Success",
  - Data: {
    - PHONE: {
      NUMBER: "9283997589",
      NUMBER2: "(928) 399-7589",
      CNAM: "STEWART TITLE",
      CODE: "OPN"
    },
    - STATS: {
      DATE: "03/25/2021",
      DAILY: "3",
      MONTHLY: "3",
      RATE: "0.06",
      BALANCE: "598.9048"
    }
  },
  Error: null
}
```

Example. Reachable + Caller API (api_Inc) – JSON

```
{
  Status: "Success",
  - Data: {
    - PHONE: {
      NUMBER: "9495001234",
      NUMBER2: "(949) 500-1234",
      CNAM: "PEREZ,ANDREW",
      STATUS: "ACTIVE",
      DNC: "YES",
      TYPE: "CELLULAR",
      VOIP: "NO",
      CARRIER: "VERIZON WIRELESS",
      OCN: "6006",
      PORTED: "YES",
      SMSEMAIL: "9495001234@vtext.com",
      STATE: "CA",
      LOCATION: "NEWPORTBCH/ANAHEIM",
      LATA: "Los Angeles CA (includes La Paz County, AZ)",
      TIMEZONE: "PACIFIC STANDARD TIME (PST)",
      TIMENOW: "12/16/2019 12:38:20 AM",
      CODE: "TLX"
    },
    - STATS: {
      DATE: "12/15/2019",
      DAILY: "2",
      MONTHLY: "2",
      RATE: "0.07",
      BALANCE: "911.3909"
    }
  },
  Error: null
}
```

No Results

If no results found for given phone number. The API will return this response. This could happen, for example if area code is invalid or number has not yet been issued.

```
<RESULTS>
  <PHONE>
    <NUMBER>9281237589</NUMBER>
    <NUMBER2>(928) 123-7589</NUMBER2>
    <CNAM/>
    <STATUS/>
    <DNC/>
    <TYPE>UNKNOWN</TYPE>
    <VOIP/>
    <CARRIER>UNKNOWN</CARRIER>
    <OCN/>
    <PORTED/>
    <SMSEMAIL/>
    <STATE/>
    <LOCATION/>
    <LATA/>
    <TIMEZONE>UNKNOWN</TIMEZONE>
    <TIMENOW>3/25/2021 10:59:43 PM</TIMENOW>
    <CODE>LOC</CODE>
  </PHONE>
  <STATS>
    <DATE>03/25/2021</DATE>
    <DAILY>4</DAILY>
    <MONTHLY>4</MONTHLY>
    <RATE>0.01</RATE>
    <BALANCE>598.8348</BALANCE>
  </STATS>
</RESULTS>
```

Errors

In case of processing, input data or account error, the error message will be displayed in XML results. Here are some examples:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="true"?>
- <Results>
  <Error>Phone number has to be 10 digit long. Can use any format.</Error>
</Results>
```

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="true"?>
- <Results>
  <Error>Password or account number are not valid.</Error>
</Results>
```

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="true"?>
- <Results>
  <Error>No price is set for this service. SearchBug Services (api_loc3).</Error>
</Results>
```

```
{
  Status: "Error",
  Data: null,
  Error: "Phone number has to be 10 digit long. Can use any format."
}
```

Field Definitions

PHONE

- **NUMBER** – 10-digits phone number used for processing (e.g. 9495001234)
- **NUMBER2** – Formatted number (e.g. (949) 500-1234)
- **CNAM** - Caller ID, 15-character name associated with the phone number.
- **STATUS** – Will be always be blank. This is an indicator if line is active or disconnected. Reported by Reachable Phone Number API (api_atn2) only
- **DNC** – Will be always be blank. This is an indicator if phone number is listed on the federal Do-Not-Call list. Reported by Active Phone Number API (api_atn2) only
- **TYPE** – Phone line type. Will contain LANDLINE, CELLULAR or UNKNOWN
- **VOIP** – Will contain YES if number is VoIP number, otherwise will say NO

- **CARRIER** – Phone company (local exchange carrier) name. For Standard Phone ID API the original carrier is shown. For VoIP phone numbers the name of the VoIP reseller is shown e.g. BANDWIDTH.COM, not an actual service provider, which could be Vonage, Magic Jack, RingCentral, VoIP.com, Google Voice or other.
- **OCN** – Operating Company Number, a unique carrier ID. For Standard Phone ID API OCN of the original carrier is shown.
- **PORTED** – Will show YES for individually numbers, NO for numbers never ported. Advanced API only (api_inp2). Will be blank for Standard API (api_loc2)
- **SMSEMAIL** – Email address for sending a text message to the cell phone number customer
- **STATE** – US State or Canadian Province for the phone number
- **LOCATION** – Will show Rate Center and/or Central Office location. Can be city name (SEATTLE), city abbreviation (NEWPORTBCH) or code (NWYRCYZN01)
- **LATA** – Local Access and Transport Area, description of a local calling area
- **TIMEZONE** – Time Zone of the phone number
- **TIMENOW** – Time in the phone number's time zone at the moment of the API request
- **CODE** – Searchbug internal code used for troubleshooting. May change overtime.

STATS

- **DATE** – Date of current request
- **DAILY** – Daily usage. Number of today's requests
- **MONTHLY** – Monthly usage. Number of requests in the current month
- **RATE** – Current price for the API. Rate resets every month and goes down with usage.
- **BALANCE** – Current account balance. Automatically recharged when balance runs out.

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