SearchBug API Services

Implementation Guide

Identify Phone Number (Line Type and Carrier) APIs

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Introduction

SearchBug Phone ID API allows you 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 API also reports if phone number was ported to a different carrier.

The data is available for US or Canadian phone numbers. VoIP data is currently only for US numbers. 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.

Overview

SearchBug has deployed the Phone ID API service as an XML 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 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.

- With both Standard and Advanced API services, you pay for each search. SearchBug business account with prepaid payment plan is required. Search fee is deducted from your account balance each time you make a query.
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=TYPE=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.

<Type> Use api_loc2 for the Standard Phone ID API. Use api_lnp2 for the Advanced Phone ID API.

<Phone> can be in any format. It may contain spaces(73,656),(928,817)


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. To get results in JSON format, pass &FORMAT=JSON

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

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_lnp2&F=212-773-1234

https://data.searchbug.com/api/search.aspx?
CO_CODE=34567&PASS=H4z865i3$1&type=api_loc2&F=(212) 773-1234&FORMAT=JSON
Sending Request (up to 1,000 phone numbers a time) via POST

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.

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

Both Standard and Advanced Phone ID APIs returns results in XML the same format.

Example 1. Standard Phone ID API (api_loc2) results for a cell phone number

```xml
<?xml version="1.0" encoding="ISO-8859-1" standalone="true"?>
  <RESULTS>
    - <PHONE>
      <NUMBER>9283997588</NUMBER>
      <NUMBER>(928) 399-7588</NUMBER>
      <STATUS/>
      <DNC/>
      <TYPE>CELLULAR</TYPE>
      <VOIP/>
      <CARRIER>T MOBILE</CARRIER>
      <OCN/>
      <PORTED/>
      <SMSEMAIL>9283997588@tmomail.net</SMSEMAIL>
      <STATE>AZ</STATE>
      <LOCATION>SEDONA</LOCATION>
      <LATA>Phoenix AZ (plus Winterhvn CA, Spirit Mnt NV, Glen Cyn, UT)</LATA>
      <TIMEZONE>Unknown</TIMEZONE>
      <TIMENOW>5/5/2018 7:12:29 AM</TIMENOW>
      <CODE>LOC</CODE>
    </PHONE>
    - <STATS>
      <DATE>05/05/2018</DATE>
      <DAILY>1</DAILY>
      <MONTHLY>27</MONTHLY>
      <RATE>0.01</RATE>
      <BALANCE>9999.734</BALANCE>
    </STATS>
  </RESULTS>
```
Example 2. Advanced Phone ID API (api_lnp2) results for a ported cell phone number in XML format

```xml
<?xml version="1.0" encoding="ISO-8859-1" standalone="true"?>
<RESULTS>
  <PHONE>
    <NUMBER>9495001234</NUMBER>
    <NUMBER2>(949) 500-1234</NUMBER2>
    <STATUS/>
    <DNC/>
    <TYPE>CELLULAR</TYPE>
    <VOIP>NO</VOIP>
    <CARRIER>VERIZON WIRELESS</CARRIER>
    <OCN>6006</OCN>
    <PORTED>YES</PORTED>
    <SMEMAIL>9495001234@vtext.com</SMEMAIL>
    <STATE>CA</STATE>
    <LOCATION>NEWPORT BCH</LOCATION>
    <LATA>Los Angeles CA (includes La Paz County, AZ)</LATA>
    <TIMEZONE>Unknown</TIMEZONE>
    <TIMENOW>5/5/2018 7:14:28 AM</TIMENOW>
    <CODE>LRN</CODE>
  </PHONE>
  <STATS>
    <DATE>05/05/2018</DATE>
    <DAILY>1</DAILY>
    <MONTHLY>1</MONTHLY>
    <RATE>0.015</RATE>
    <BALANCE>9999.715</BALANCE>
  </STATS>
</RESULTS>
```
Example 2. Advanced Phone ID API (api_lnp2) results for a ported cell phone number in JSON format

```json
{
    "Status": "Success",
    "Data": {
        "PHONE": {
            "NUMBER": "9495001234",
            "NUMBER2": "(949) 500-1234",
            "STATUS": "null",
            "DNC": "null",
            "TYPE": "CELLULAR",
            "VOIP": "NO",
            "CARRIER": "VERIZON WIRELESS",
            "OCN": "6006",
            "PORTED": "YES",
            "SMSEMAIL": "9495001234@vtext.com",
            "STATE": "CA",
            "LOCATION": "NEWPORTBCH",
            "LATA": "Los Angeles CA (includes La Paz County, AZ)",
            "TIMEZONE": "Unknown",
            "TIMENOW": "5/5/2018 7:17:30 AM",
            "CODE": "LRN"
        },
        "STATS": {
            "DATE": "05/05/2018",
            "DAILY": "1",
            "MONTHLY": "1",
            "RATE": "0.015",
            "BALANCE": "9999.7"
        }
    },
    "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.

```xml
<?xml version="1.0" encoding="ISO-8859-1" standalone="true"?>
  <RESULTS>
    <PHONE>
      <NUMBER>7321231234</NUMBER>
      <NUMBER2>(732) 123-1234</NUMBER2>
      <STATUS/>
      <DNC/>
      <TYPE>UNKNOWN</TYPE>
      <VOIP/>
      <CARRIER>UNKNOWN</CARRIER>
      <OCW/>
      <PORTED/>
      <SMEMAIL/>
      <STATE/>
      <LOCATION/>
      <LATA/>
      <TIMEZONE>Unknown</TIMEZONE>
      <TIMENOW>5/5/2018 4:30:07 PM</TIMENOW>
      <CODE>LOC</CODE>
    </PHONE>
    <STATS>
      <DATE>05/05/2018</DATE>
      <DAILY>1</DAILY>
      <MONTHLY>1</MONTHLY>
      <RATE>0.01</RATE>
      <BALANCE>9999.343</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
<?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
<?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>
Field Definitions

PHONE
- **NUMBER** – 10-digits phone number used for processing (e.g. 9495001234)
- **NUMBER2** – Formatted number (e.g. (949) 500-1234)
- **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 (NYWARYZ01)
- **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.
For further technical details please contact andre@searchbug.com
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