

IP2Location vs. WhoisXML API vs. IPify: 3 Best IP Geolocation Services Compared

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IP geolocation is an important source of intelligence with benefits in cybersecurity and marketing. Its use cases include cybercrime prevention, fraud detection, website traffic generation, and many others. Thus, it isn't surprising to find out that a web search for the keyword "ip geolocation" would return millions of results, many of which include the service pages of some of the best IP geolocation / IP-to-location providers.

Yet with many options available, how would you know which one to choose? We did a comprehensive review of three IP geolocation vendors to answer this question.

What Is IP Geolocation / IP 2 Location?

IP geolocation, also known as IP 2 location or IP to location, is the process of mapping a geographic location to a given IP address. It is essentially what an IP geolocation solution or service does. Using an IP address as a query string, users can get its owner's geographic location from the country down to the postal code level.

Check out this video for more information:

Some of the Best IP Geolocation Providers Compared

Vendor #1: WhoisXML API

[WhoisXML API](#) has been in business for more than a decade now. Its IP geolocation database contains information on over 27 million total unique ranges and more than 9.5 million IP netblocks, giving it a 99.5% coverage of all IP addresses in use. It also harnesses the power of the passive Domain Name System (DNS) to provide clients with connections from IP addresses to domain names over time.

Vendor #2: IP2Location

IP2Location is also 18 years old. It has more than 32 datasets that users can choose from and supports over 20 programming languages. Its IP geolocation database contains more than 4 billion IPv4 addresses and over 340 undecillion IPv6 addresses. To date, IP2Location has helped users make more than a billion API calls.

Vendor #3: IPify

IPify has been serving clients since 2014. The provider claims that its database also covers 99.5% of all IP addresses in use, with clients using its products for a variety of business purposes that include content personalization, digital marketing, access blocking, protection against cyber fraud, and security policy reinforcement.

5 Criteria to Find the Best IP Geolocation Service

Breadth, depth, variety of consumption models and adjacent sources of intelligence, pricing, and support and reputation are all important criteria to compare IP geolocation service providers.

1. Breadth: Number of Unique IP Addresses

Details on the breadth of IP geolocation providers' database offerings are shown below.

- **WhoisXML API:** Close to 3.7 billion IPv4 addresses and undecillions of IPv6 addresses.
- **IP2Location:** Claiming to cover around 4.3 billion IPv4 addresses and undecillions of IPv6 addresses.
- **IPify:** The provider states that its database includes 99.5% of all IP addresses in use.

2. Depth: IP Geolocation Data Points

The number of geo data points covered varies per vendor.

- **WhoisXML API:** A total of 14 data points, namely:
 - Country
 - Region
 - City
 - Latitude and longitude coordinates
 - Postal code
 - Time zone
 - GeoNames ID
 - Connected domains (for shared IP addresses)
 - Internet service provider (ISP)
 - Connection type
 - Autonomous System (AS) number
 - Organization name
 - AS route
 - ISP domain

- Usage type



WhoisXMLAPI



```
{
  "ip": "110.170.64.0",
  "location": {
    "country": "TH",
    "region": "Bangkok",
    "city": "Bangkok",
    "lat": 13.7086,
    "lng": 100.4553,
    "postalCode": "10110",
    "timezone": "+07:00",
    "geonameId": 1609350
  },
  "isp": "True Internet",
  "connectionType": "broadband",
  "domains": [
    "110-170-64-0.static.asianet.co.th"
  ],
  "as": {
    "asn": 7470,
    "name": "TRUE INTERNET Co.,Ltd.",
    "route": "110.170.64.0/18",
```

- **IP2Location:** A total of up to 24 data points (depending on data sets). These include 14 of WhoisXML API's data points (i.e., country, region, city, latitude and longitude coordinates, postal code, time zone, GeoNames ID, ISP, connection type, AS number, organization name, AS route, ISP domain, and usage type) and the following:
 - Country code
 - International direct dialing (IDD) code
 - Area code
 - Weather station code
 - Weather station name
 - Mobile country code (MCC)
 - Mobile network code (MNC)
 - Mobile brand
 - Elevation
 - Credits consumed



WhoisXMLAPI



```
{
  "country_code": "US",
  "country_name": "United States",
  "region_name": "California",
  "city_name": "Mountain View",
  "latitude": "37.405992",
  "longitude": "-122.078515",
  "zip_code": "94043",
  "time_zone": "-07:00",
  "isp": "Google LLC",
  "domain": "google.com",
  "net_speed": "T1",
  "idd_code": "1",
  "area_code": "650",
  "weather_station_code": "USCA0746",
  "weather_station_name": "Mountain View",
  "mcc": "-",
  "mnc": "-",
  "mobile_brand": "-",
  "elevation": "32",
  "usage_type": "DCH",
  "continent": {
    "name": "North america",
    "code": "NA",
    "hemisphere": [
      "north",
      "east"
    ]
  }
}
```



- **IPify:** A total of 13 data points included in WhoisXML API's data points (i.e., country, region, city, latitude and longitude coordinates, postal code, time zone, GeoNames ID, connected domains, AS number, organization name, AS route, ISP domain, and usage type).



WhoisXMLAPI



```
{
  "ip": "8.8.8.8",
  "location": {
    "country": "US",
    "region": "Virginia",
    "city": "Ashburn",
    "lat": 39.0438,
    "lng": -77.4874,
    "postalCode": "20149",
    "timezone": "-04:00",
    "geonameId": 4744870
  },
  "domains": [
    "qiencorp.com",
    "qqnetpaint.com",
    "qbrandsgroup.com",
    "qanad.com",
    "qlmre6.gsstnb.cn"
  ],
  "as": {
    "asn": 15169,
    "name": "Google LLC",
    "route": "8.8.8.0/24",
    "domain": "https://about.google/intl/en/",
    "type": "Content"
  }
}
```

3. Consumption Models and Adjacent Sources of Intelligence

Among the four vendors, WhoisXML API has the most extensive product range.

WhoisXML API Products

WhoisXML API has a total of eight IP intelligence offerings, namely:

- **IP Geolocation API and IP Geolocation Lookup:** Apart from an IP address, IP Geolocation API allows users to search for geolocation information using a domain name or an email address as input. It provides results in either JavaScript Object Notation (JSON) or XML format. As such, it is integrable into most if not all compatible solutions or systems. Instructions for its use are available on the [API Docs page](#). Developer libraries and code samples, meanwhile, can be downloaded from the [Integrations page](#).

IP Geolocation Lookup is a web-based service version of IP Geolocation API. While it provides the same results, it does so in a format that even the not so tech-savvy can read. It also gives reports with custom URLs for easy sharing.



110.54.237.196



Search by IPv4 or IPv6 address, domain name or email

```
“ ip: String
  “ "110.54.237.196"

{ location: Object
  “ country: "PH",
  “ region: "Ilocos",
  “ city: "Salcedo",
  “ lat: "17.1347",
  “ lng: "120.562",
  “ postalCode: "2711",
  “ timezone: "+08:00",
  “ geonameId: "1690908"


{ as: Object
  “ asn: "132199",
  “ name: "Globe Telecom Inc.",
```

Decoded format

110.54.237.196 IP Geolocation details

[New search](#)

Location

Country	 PH
Region	Ilocos
City	Salcedo
Latitude	17.1347
Longitude	120.562
Postal code	2711



- **IP Geolocation Data Feed:** This is IP Geolocation API's and IP Geolocation Lookup's intelligence source. It contains data on 32 million IP blocks and locations and comes in JSON and comma-separated values (CSV) formats. More detailed instructions for downloading and integration is available on the [Specifications page](#).

IP Geolocation Data Feed IPv4 ☆ 📄

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	A	B	C	D	E	F	G	H	I	J	K
1	mark	isp	connectionType	country	region	city	lat	lng	postalCode	timezone	geonameId
2	21513984	NTT Docomo	cellular	JP	Hokkaido	Sapporo	43.067	141.35	988-0807	+09:00	2128295
3	21514240	NTT Docomo	cellular	JP	Mie	Yokkaichi	34.96667	136.61667	512-1202	+09:00	1848373
4	21514496	NTT Docomo	cellular	JP	Aichi	Nisshin	35.12889	137.0425	470-0125	+09:00	6822209
5	21514752	NTT Docomo	cellular	JP	Osaka	Osaka	34.69389	135.50221	541-0041	+09:00	1853909
6	21515008	NTT Docomo	cellular	JP	Tokyo	Tokyo	35.689507	139.6917	214-0021	+09:00	1850147
7	21515264	NTT Docomo	cellular	JP	Oita	Ôita	33.23333	131.60667	870-0922	+09:00	1854487
8	21515520	NTT Docomo	cellular	JP	Kanagawa	Yokohama	35.44417	139.63806	231-0021	+09:00	1848354
9	21515776	NTT Docomo	cellular	JP	Aichi	Nisshin	35.12889	137.0425	470-0125	+09:00	6822209
10	21516032	NTT Docomo	cellular	JP	Hokkaido	Sapporo	43.067	141.35	988-0807	+09:00	2128295
11	21516288	NTT Docomo	cellular	JP	Tokyo	Tokyo	35.689507	139.6917	214-0021	+09:00	1850147
12	21516544	NTT Docomo	cellular	JP	Yamagata	Yamagata	38.25	140.333	990-0055	+09:00	2110556
13	21516800	NTT Docomo	cellular	JP	Gifu		35.417	136.767	500-8176	+09:00	1863640
14	21517056	NTT Docomo	cellular	JP	Fukuoka	Fukuoka	33.583	130.4	812-0045	+09:00	1863967
15	21517312	NTT Docomo	cellular	JP	Tokyo	Tokyo	35.689507	139.6917	214-0021	+09:00	1850147
16	21517568	NTT Docomo	cellular	JP	Hyôgo	Amagasaki	34.733	135.4	660-0808	+09:00	1865387
17	21517824	NTT Docomo	cellular	JP	Kanagawa	Yokohama	35.44417	139.63806	231-0021	+09:00	1848354
18	21518080	NTT Docomo	cellular	JP	Osaka	Osaka	34.69389	135.50221	541-0041	+09:00	1853909
19	21518336	NTT Docomo	cellular	JP	Tokushima	Tokushima	34.067	134.55	773-0070	+09:00	1850158
20	21518592	NTT Docomo	cellular	JP	Aichi	Nisshin	35.12889	137.0425	470-0125	+09:00	6822209

- **IP Netblocks API and IP Netblocks Lookup:** These adjacent sources of IP intelligence determine the IP range and netblock an IP address belongs to, along with detailed information on its owner.

The API gives results in JSON and XML formats, making it easily integrable into existing solutions and systems. Instructions for its use and integration is available on the [API Docs page](#).

IP Netblocks Lookup, meanwhile, provides easy-to-read reports for the less tech-savvy. It also gives a custom URL for each report, making it easy for users to share.



8.8.8.8



Search by IPv4, IPv6, Company name, ASN

Demo: up to 100 ranges

```
[
  {
    "inetnum": "8.8.8.0 - 8.8.8.255",
    "inetnumFirst": 281470816487424,
    "inetnumLast": 281470816487679,
    "as": {
      "asn": 15169,
      "name": "Google LLC",
      "type": "Content",
      "route": "8.8.8.0/24",
      "domain": "https://about.google/intl/en/"
    },
    "netname": "LVLT-GOGL-8-8-8",
    "nethandle": "NET-8-8-8-0-1",
    "country": "US"
  }
]
```

Total ranges: 7

Decoded format

8.8.8.8 Netblocks details

[New lookup](#)Search by **IPv4**, **IPv6**, **Company name**, **ASN**

IP range(s) found: 7

[Documentation](#)

IP range #1

Autonomous System

Inetnum	8.8.8.0 - 8.8.8.255	Netname	LVLT-GOGL-8-8-8	ASN	15169
Inetnum first	281470816487424	ARIN ID	NET-8-8-8-0-1	Name	Google LLC
Inetnum last	281470816487679	Modified	March 14, 2014	Route	8.8.8.0/24
Source	ARIN	Country	US	Domain	https://about.google/intl/en/
		City	Mountain View	Type	Content

- **IP Netblocks WHOIS Database:** Like IP Netblocks API and IP Netblocks Lookup, the database lets users check the IP range and netblock of an IP address, along with detailed information on its owner. It's available in two formats—JSON and CSV. Users can also choose to download the database in full or daily increments via HyperText Transfer Protocol Secure (HTTPS) or File Transfer Protocol (FTP). Detailed instructions for downloading are available on the [Specifications page](#).

IP Netblocks Database ☆ 📄

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	A	B	C	D	E	F	G
1	1.53.112.0 - 1.53.127.255	20279296	20283391	18403	FPT Telecom	1.53.112.0/20	http://www.fpt.vn
2	103.11.22.0 - 103.11.23.255	1728779776	1728780287	58390	PT. Faasri Utama Sakti	103.11.22.0/23	
3	103.122.6.0 - 103.122.6.255	1736050176	1736050431	18196	7 Star Dot Com Pvt. Ltd	103.122.6.0/24	http://www.my7star.com
4	103.196.14.0 - 103.196.14.255	1740901888	1740902143	0			
5	105.236.216.0 - 105.236.216.63	1777129472	1777129535	16637	MTN South Africa	105.236.0.0/16	https://www.mtn.com
6	105.237.20.192 - 105.237.20.255	1777145024	1777145087	16637	MTN South Africa	105.237.0.0/16	https://www.mtn.com
7	105.237.96.192 - 105.237.96.255	1777164480	1777164543	16637	MTN South Africa	105.237.0.0/16	https://www.mtn.com
8	107.151.209.96 - 107.151.209.103	1805111648	1805111655	62468	VPSQUAN	107.151.209.0/24	
9	107.158.196.160 - 107.158.196.175	1805567136	1805567151	62904	Eonix N.A. Region	107.158.196.0/24	http://www.serverhub.com
10	109.168.12.152 - 109.168.12.155	1839729816	1839729819	5602	KPNQwest Italia SpA	109.168.0.0/18	http://www.kpnqwest.it
11	109.168.66.0 - 109.168.66.3	1839743488	1839743491	5602	KPNQwest Italia SpA	109.168.64.0/19	http://www.kpnqwest.it
12	109.225.84.0 - 109.225.84.255	1843483648	1843483903	45011	A3 Sverige	109.225.64.0/18	http://www.a3.se

- **Reverse IP/DNS API and Reverse IP/DNS Lookup:** These other adjacent sources of IP intelligence allow users to obtain a list of all the domains that resolve to an IP address and when each resolution was first and last seen. They collect data from an extensive passive DNS database, making them useful for cybersecurity purposes.

The API returns results in JSON and XML formats, making them easy to integrate into platforms. Instructions for its use are available on the [API Docs page](#). Code samples for various languages are also available on the [Integrations page](#).

Reverse IP/DNS Lookup reports, meanwhile, are easy to read even for the non-tech-savvy. The service gives a custom URL for each report, making it easy to share too.



4.4.4.4



Search by IP address

The demo is limited to 300 records

```
{ 0: Object
  "name": "0v1.club",
  "first_seen": "1546604605",
  "last_visit": "1573256262"
}
{ 1: Object
  "name": "0359mami.com",
  "first_seen": "1564099903",
  "last_visit": "1589757965"
}
{ 2: Object
  "name": "jamesonacademy.org",
  "first_seen": "1546636997",
  "last_visit": "1589805518"
```

Total records: 211

Decoded format



8.8.8.8 reverse IP details

[New lookup](#)

Number of records matching the IP address: **300**

Please note, that the lookup is limited to 300 records

016scuza6fn.xyz	First seen at:	March 27, 2020
	Date of the last update:	May 17, 2020
017ad876a5c445b8.top	First seen at:	February 29, 2020
	Date of the last update:	May 17, 2020

IP2Location Products

IP2Location has a total of three product lines, namely:

- **IP Address Geolocation Database:** These databases are available for download as either CSV or BIN files. They come in various kinds as well, depending on how much information is required.
- **IP Geolocation Web Service:** This allows users to query the database to retrieve geolocation information. A manual detailing instructions for its use, including sample query strings, can be accessed.
- **Software and Components:** IP2Location offers ready-to-use software, components, or libraries so users can integrate its products into their platforms or frameworks. These components don't require one to set up a relational database, as they search for records directly from the vendor's BIN data file.

There are four components on offer, namely:

- **.NET Component:** This is made for the .NET Framework and it enables users to perform IP geolocation lookups to determine their website visitors' geolocation accurately.

- **Java Component:** This works with the Java platform and allows applications to discover where website visitors are coming from.
- **ActiveX/COM DLL:** This is a component for Windows systems that allows developers to determine where web visitors originate based on their IP addresses.
- **HTTP Module:** This is an Internet Information Services (IIS)-managed module that allows users to retrieve extensive information about an IP address.

IPify Products

IPify has two offerings, namely:

- **IP Geolocation API:** This lets users discover the physical location of an IP address via API calls. Like other previously cited services, the API is useful for various business requirements. Details on its use are available on the [API Docs page](#).
- **IP Geolocation Data Feed:** This provides the same information as the API but in the format of a downloadable database. It contains detailed IP geolocation information gleaned from more than 30 million block records. The data feed comes in JSON format. Download instructions are available on the [Specifications page](#).

4. Pricing

Here are some of the available purchase options and their pricing for each provider:

- WhoisXML API's [API pricing](#) varies according to the number of queries and type of subscription. The provider offers 1000 free queries per month. Besides, for 1 million and 5 million queries, a one-time credit purchase would cost \$179 and \$549, respectively. The cost for 1 and 5 million queries goes down to \$99 and \$299 with a monthly plan, while yearly plans for these amounts of queries cost \$990 and \$2,990. [Database pricing](#) depends on the number of licenses and subscription type. A one-off license valid for 1 month costs \$129. A monthly and yearly subscription for one license would cost \$99 (per month) and \$990 (per year) with discounts available for more sites licenses. Custom pricing is also available, including with [Enterprise API](#) and [Enterprise Data Feed](#) packages.

- The pricing of IP2Location’s IP Geolocation web service starts at \$49 for 100,000 credits and goes up to \$441 and \$1,960 for 1 million and 5 million credits. The provider’s databases have a yearly pricing that changes based on the number of data points contained and type of licenses. The software components’ yearly costs start between \$99 and \$149.
- IPify also has pricing options with different consumption plans. API costs for one-off 1 and 10 million queries are \$89 and \$449. Comparatively, monthly and yearly subscriptions for 1 million / 10 million queries are worth \$49 / \$249 and \$495 / \$2,495. Database pricing also varies based on the number of site licenses starting with \$99 for a one-time license valid one month.

5. Support and Reputation

All of the vendors on our comparison list provide support services with contact details, such as:

- **WhoisXML API:** All of the information users need to contact the vendor can be found on its [Contact Us page](#).
- **IP2Location:** The contact details for the vendor can be found on its [Contact page](#).
- **IPify:** This vendor can be contacted via a request form at the bottom of its site.

According to a [Trustradius comparison](#) of two of the vendors—WhoisXML API and IP2Location—WhoisXML API had the top score of 9.1 out of 10. Points that made WhoisXML API stand out include:

- It provided accurate and up-to-date information that was useful not only for marketing purposes but also for cybersecurity.
- The pros indicated for the products were similar.
- WhoisXML API scored high in terms of support provision and pricing, too.

Upon review of the three vendors one certainly wonders if there is such a thing as the best IP

geolocation service provider. The short answer is no.

Each of our contenders—WhoisXML API, IP2Location and IPify—have pros and cons and particular offerings. The right choice will depend on an organization’s business needs and budget.