

# Data Dictionaries for Database Download Products

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# 1 Product: IP Netblocks WHOIS Database

URL <https://ip-netblocks-whois-database.whoisxmlapi.com>

## 1.1 Dataset: Netblocks database, full/daily incremental

**Data format:** JSONL

**Brief description:** A downloadable database of the registered IP Netblocks (IP ranges) with detailed information regarding each range.

### 1.1.1 Entity: netblock

**File naming convention:** Full data: "ip\_netblocks.%DATE%.full.jsonl.gz", daily incremental data: "ip\_netblocks.%DATE%.daily.jsonl.gz"

**Description:** an IP netblock

**inetnum** e.g. "0.0.0.0 - 255.255.255.255"

**inetnumFirst** first IP as integer value, e.g. "134744072" (which is "8.8.8.8" in IP notation)

**inetnumLast** last IP as integer value

**netname** name of the IPs range

**modified** datetime when the IP Netblock was modified the last time, accordingly to the information provided by the registry. Format: "2018-05-25T10:20:58Z".

**country** 2 chars' country code

**city** name of the city

**action** is present in Daily incremental database only. Specifies modification type: "add", "drop" or "change".

**remarks** Remarks and comments associated with the IP Netblock

**source** source of range

**abuseContact** List of abuse contacts

**id** Contact numeric ID

**person** name of the contact person

**role** role of the contact person

**phone**

**email**

**country**

**city**

**adminContact** List of administrative contacts

**id** Contact numeric ID

**person** name of the contact person

**role** role of the contact person

**phone**

**email**

**country**

**city**

**techContact** List of technical contacts

**id** Contact numeric ID

**person** name of the contact person

**role** role of the contact person

**phone**

**email**

**country**

**city**

**org** Organization that has registered the range

**id** Organization numeric ID

**name**

**phone**

**email**

**country**

**city**

**mntBy** List of maintainers who are able to update this IP range

**id**

**email**

**mntDomains** List of domain's maintainers

**id**

**email**

## 1.2 Dataset: Netblocks csv data

**Data format:** CSV

**Brief description:** A downloadable database of the registered IP Netblocks (IP ranges); with contact IDs.

### 1.2.1 Entity: csv\_netblock

**File naming convention:** Full data: "ip\_netblocks.%DATE%.full.blocks.csv.gz", daily incremental data: "ip\_netblocks.%DATE%.daily.blocks.csv.gz"

**Description:** An IP netblock with contact numeric ids only

1. **action (string: unlimited)** is present in Daily incremental database only. Specifies modification type: "add", "drop" or "change".
2. **inetnum (string: unlimited)** e.g. "0.0.0.0 - 255.255.255.255"
3. **inetnumFirst (integer: unlimited)** first IP as integer value, e.g. "134744072" (which is "8.8.8.8" in IP notation)
4. **inetnumLast (integer: unlimited)** last IP as integer value
5. **as number (integer: unlimited)** Autonomous System Number
6. **as name (string: unlimited)** Autonomous System Name
7. **as route (string: unlimited)** Autonomous System Route
8. **as domain (string: unlimited)** Autonomous System Website's URL
9. **netname (string: unlimited)** name of the IPs range
10. **modified (string: unlimited)** datetime when the IP Netblock was modified the last time, accordingly to the information provided by the registry. Format: "2018-05-25T10:20:58Z".
11. **country (string: 2)** 2 chars' country code
12. **city (string: unlimited)** name of the city
13. **org\_id (string: unlimited)** Organization's ID. Could be found in "contacts" file.
14. **abuse contacts (string: unlimited)** Abuse contacts' IDs split with space. Could be found in "contacts" file.
15. **admin contacts (string: unlimited)** Admin contacts' IDs split with space. Could be found in "contacts" file.

16. **tech contacts (string: unlimited)** Tech contacts' IDs split with space. Could be found in "contacts" file.
17. **maintainers (string: unlimited)** Maintainers' IDs split with space. Could be found in "contacts" file.
18. **domain maintainers (string: unlimited)** Domain maintainers' IDs split with space. Could be found in "contacts" file.
19. **lower maintainers (string: unlimited)** Lower maintainers' IDs split with space. Could be found in "contacts" file.
20. **routes maitainers (string: unlimited)** Routes maintainers' IDs split with space. Could be found in "contacts" file.
21. **source (string: unlimited)** source of range
22. **remarks (string: unlimited)** Remarks and comments associated with the IP Netblock
23. **as type (string: unlimited)** Autonomous System type, one of the following: "Cable/DSL/ISP", "Content", "Educational/Research", "Enterprise", "Non-Profit", "Not Disclosed", "NSP", "Route Server". Empty when unknown.

### 1.2.2 Entity: csv contact

**File naming convention:** Full data: "ip\_netblocks.%DATE%.full.contacts.csv.gz", daily incremental data: "ip\_netblocks.%DATE%.daily.contacts.csv.gz"

**Description:** Contact data for netblocks

1. **type (string: 12)** 'organization', 'person' and 'role' for contact, 'maintainer'
2. **id (None: unlimited)** Contact numeric ID
3. **name (string: unlimited)**
4. **email (None: unlimited)**
5. **phone (None: unlimited)**
6. **country (None: unlimited)**
7. **city (None: unlimited)**

## 2 Product: Whois Database Download

**URL** <https://www.whoisxmlapi.com/whois-database-download.php>

## 2.1 Dataset: Domain WHOIS database in csv

**Data format:** CSV

**Brief description:** Quarterly and daily incremental domain WHOIS databases of gTLDs and ccTLDs

### 2.1.1 Entity: full domain WHOIS data

**File naming convention:** Quarterly and daily WHOIS csvs having "full" in their name, broken down by TLDs

**Description:** Full csv files of domain WHOIS data

1. **domainName (string: 70)** Domain Name
2. **registrarName (string: 512)** A domain name registrar is an organization or commercial entity that manages the reservation of Internet domain names.
3. **contactEmail (string: 256)** Contact email
4. **whoisServer (string: 512)** WHOIS server (from registry data)
5. **nameServers (string: unlimited)** WHOIS server (from registry data)
6. **createdDate (string: 200)** When the domain name was first registered/created
7. **updatedDate (string: 200)** When the domain WHOIS data were updated
8. **expiresDate (string: 200)** When the domain will expire
9. **standardRegCreatedDate (string: 200)** created date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
10. **standardRegUpdatedDate (string: 200)** updated date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
11. **standardRegExpiresDate (string: 200)** expires date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
12. **status (string: unlimited)** Domain name EPP status codes, see also <https://www.icann.org/resources/pages/epp-status-codes-2014-06-16-en>
13. **RegistryData\_rawText (string: unlimited)** raw text of the registry WHOIS record
14. **WhoisRecord\_rawText (string: unlimited)** raw text of the registrar WHOIS record

15. **Audit\_auditUpdatedDate:** (string: 19) the timestamp of when the whois record is collected in the standardFormat(YYYY-mm-dd), e.g. 2012-02-01
16. **registrant\_rawText** (string: unlimited)
17. **registrant\_email** (string: 256)
18. **registrant\_name** (string: 256) The domain name registrant is the owner of the domain name. They are the ones who are responsible for keeping the entire WHOIS contact information up to date.
19. **registrant\_organization** (string: 256)
20. **registrant\_street1** (string: 256)
21. **registrant\_street2** (string: 256)
22. **registrant\_street3** (string: 256)
23. **registrant\_street4** (string: 256)
24. **registrant\_city** (string: 64)
25. **registrant\_state** (string: 45)
26. **registrant\_postalCode** (string: 45)
27. **registrant\_country** (string: 45)
27. **registrant\_faxExt** (string: 45)
28. **registrant\_fax** (string: 45)
29. **registrant\_telephone** (string: 45)
30. **registrant\_telephoneExt** (string: 45)
31. **administrativeContact\_rawText** (string: unlimited)
33. **administrativeContact\_email** (string: 256)
34. **administrativeContact\_name** (string: 256) The administrative contact is the person in charge of the administrative dealings pertaining to the company owning the domain name.
35. **administrativeContact\_organization** (string: 256)
36. **administrativeContact\_street1** (string: 256)
37. **administrativeContact\_street2** (string: 256)
38. **administrativeContact\_street3** (string: 256)
39. **administrativeContact\_street4** (string: 256)
40. **administrativeContact\_city** (string: 64)

41. **administrativeContact\_state** (string: 45)
42. **administrativeContact\_postalCode** (string: 45)
43. **administrativeContact\_country** (string: 45)
44. **administrativeContact\_fax** (string: 45)
45. **administrativeContact\_faxExt** (string: 45)
46. **administrativeContact\_telephone** (string: 45)
47. **administrativeContact\_telephoneExt** (string: 45)
48. **billingContact\_rawText** (string: unlimited)
49. **billingContact\_email** (string: 256)
50. **billingContact\_name** (string: 256) The billing contact is the individual who is authorized by the registrant to receive the invoice for domain name registration and domain name renewal fees.
51. **billingContact\_organization** (string: 256)
52. **billingContact\_street1** (string: 256)
53. **billingContact\_street2** (string: 256)
54. **billingContact\_street3** (string: 256)
55. **billingContact\_street4** (string: 256)
56. **billingContact\_city** (string: 64)
57. **billingContact\_state** (string: 45)
58. **billingContact\_postalCode** (string: 45)
59. **billingContact\_country** (string: 45)
60. **billingContact\_fax** (string: 45)
61. **billingContact\_faxExt** (string: 45)
62. **billingContact\_telephone** (string: 45)
63. **billingContact\_telephoneExt** (string: 45)
64. **technicalContact\_rawText** (string: unlimited)
65. **technicalContact\_email** (string: 256)
66. **technicalContact\_name** (string: 256) The technical contact is the person in charge of all technical questions regarding a particular domain name.
67. **technicalContact\_organization** (string: 256)

- 68. `technicalContact_street1` (string: 256)
- 69. `technicalContact_street2` (string: 256)
- 70. `technicalContact_street3` (string: 256)
- 71. `technicalContact_steet4` (string: 256)
- 72. `technicalContact_city` (string: 64)
- 73. `technicalContact_state` (string: 45)
- 74. `technicalContact_postalCode` (string: 45)
- 75. `technicalContact_country` (string: 45)
- 76. `technicalContact_fax` (string: 45)
- 77. `technicalContact_faxExt` (string: 45)
- 78. `technicalContact_telephone` (string: 45)
- 79. `technicalContact_telephoneExt` (string: 45)
- 80. `zoneContact_rawText` (string: unlimited)
- 81. `zoneContact_email` (string: 256)
- 82. `zoneContact_name` (string: 256) The domain technical/zone contact is the person who tends to the technical aspects of maintaining the domain's name server and resolver software, and database files.
- 83. `zoneContact_organization` (string: 256)
- 84. `zoneContact_street1` (string: 256)
- 85. `zoneContact_street2` (string: 256)
- 86. `zoneContact_street3` (string: 256)
- 87. `zoneContact_steet4` (string: 256)
- 88. `zoneContact_city` (string: 64)
- 89. `zoneContact_state` (string: 45)
- 90. `zoneContact_postalCode` (string: 45)
- 91. `zoneContact_country` (string: 45)
- 92. `zoneContact_fax` (string: 45)
- 93. `zoneContact_faxExt` (string: 45)
- 94. `zoneContact_telephone` (string: 45)
- 95. `zoneContact_telephoneExt` (string: 45)
- 96. `registrarIANAID` (string: unlimited) IANA ID of the registrar

### 2.1.2 Entity: regular domain WHOIS data

**File naming convention:** Quarterly and daily WHOIS csvs having "regular" in their name, broken down by TLDs

**Description:** Regular csv files of domain WHOIS data, subset of full data

1. **domainName (string: 70)** Domain Name
2. **registrarName (string: 512)** A domain name registrar is an organization or commercial entity that manages the reservation of Internet domain names.
3. **contactEmail (string: 256)** Contact email
4. **whoisServer (string: 512)** WHOIS server (from registry data)
5. **nameServers (string: unlimited)** WHOIS server (from registry data)
6. **createdDate (string: 200)** When the domain name was first registered/created
7. **updatedAt (string: 200)** When the domain WHOIS data were updated
8. **expiresDate (string: 200)** When the domain will expire
9. **standardRegCreatedDate (string: 200)** created date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
10. **standardRegUpdatedDate (string: 200)** updated date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
11. **standardRegExpiresDate (string: 200)** expires date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
12. **status (string: unlimited)** Domain name EPP status codes, see also <https://www.icann.org/resources/pages/epp-status-codes-2014-06-16-en>
13. **Audit\_auditUpdatedDate: (string: 19)** the timestamp of when the whois record is collected in the standardFormat(YYYY-mm-dd), e.g. 2012-02-01
14. **registrant\_rawText (string: unlimited)**
15. **registrant\_email (string: 256)**
16. **registrant\_name (string: 256)** The domain name registrant is the owner of the domain name. They are the ones who are responsible for keeping the entire WHOIS contact information up to date.

17. registrant\_organization (string: 256)
18. registrant\_street1 (string: 256)
19. registrant\_street2 (string: 256)
20. registrant\_street3 (string: 256)
21. registrant\_steet4 (string: 256)
22. registrant\_city (string: 64)
23. registrant\_state (string: 45)
24. registrant\_postalCode (string: 45)
25. registrant\_country (string: 45)
26. registrant\_fax (string: 45)
27. registrant\_faxExt (string: 45)
28. registrant\_telephone (string: 45)
29. registrant\_telephoneExt (string: 45)
30. administrativeContact\_rawText (string: unlimited)
31. administrativeContact\_email (string: 256)
32. administrativeContact\_name (string: 256) The administrative contact is the person in charge of the administrative dealings pertaining to the company owning the domain name.
33. administrativeContact\_organization (string: 256)
34. administrativeContact\_street1 (string: 256)
35. administrativeContact\_street2 (string: 256)
36. administrativeContact\_street3 (string: 256)
37. administrativeContact\_steet4 (string: 256)
38. administrativeContact\_city (string: 64)
39. administrativeContact\_state (string: 45)
40. administrativeContact\_postalCode (string: 45)
41. administrativeContact\_country (string: 45)
42. administrativeContact\_fax (string: 45)
43. administrativeContact\_faxExt (string: 45)
44. administrativeContact\_telephone (string: 45)
45. administrativeContact\_telephoneExt (string: 45)
46. billingContact\_rawText (string: unlimited)

47. **billingContact\_email** (string: 256)
48. **billingContact\_name** (string: 256) The billing contact is the individual who is authorized by the registrant to receive the invoice for domain name registration and domain name renewal fees.
49. **billingContact\_organization** (string: 256)
50. **billingContact\_street1** (string: 256)
51. **billingContact\_street2** (string: 256)
52. **billingContact\_street3** (string: 256)
53. **billingContact\_street4** (string: 256)
54. **billingContact\_city** (string: 64)
55. **billingContact\_state** (string: 45)
56. **billingContact\_postalCode** (string: 45)
57. **billingContact\_country** (string: 45)
58. **billingContact\_fax** (string: 45)
59. **billingContact\_faxExt** (string: 45)
60. **billingContact\_telephone** (string: 45)
61. **billingContact\_telephoneExt** (string: 45)
62. **technicalContact\_rawText** (string: unlimited)
63. **technicalContact\_email** (string: 256)
64. **technicalContact\_name** (string: 256) The technical contact is the person in charge of all technical questions regarding a particular domain name.
65. **technicalContact\_organization** (string: 256)
66. **technicalContact\_street1** (string: 256)
67. **technicalContact\_street2** (string: 256)
68. **technicalContact\_street3** (string: 256)
69. **technicalContact\_street4** (string: 256)
70. **technicalContact\_city** (string: 64)
71. **technicalContact\_state** (string: 45)
72. **technicalContact\_postalCode** (string: 45)
73. **technicalContact\_country** (string: 45)

- 74. `technicalContact_fax` (string: 45)
- 75. `technicalContact_faxExt` (string: 45)
- 76. `technicalContact_telephone` (string: 45)
- 77. `technicalContact_telephoneExt` (string: 45)
- 78. `zoneContact_rawText` (string: unlimited)
- 79. `zoneContact_email` (string: 256)
- 80. `zoneContact_name` (string: 256) The domain technical/zone contact is the person who tends to the technical aspects of maintaining the domain's name server and resolver software, and database files.
- 81. `zoneContact_organization` (string: 256)
- 82. `zoneContact_street1` (string: 256)
- 83. `zoneContact_street2` (string: 256)
- 84. `zoneContact_street3` (string: 256)
- 85. `zoneContact_steet4` (string: 256)
- 86. `zoneContact_city` (string: 64)
- 87. `zoneContact_state` (string: 45)
- 88. `zoneContact_postalCode` (string: 45)
- 89. `zoneContact_country` (string: 45)
- 90. `zoneContact_fax` (string: 45)
- 91. `zoneContact_faxExt` (string: 45)
- 92. `zoneContact_telephone` (string: 45)
- 93. `zoneContact_telephoneExt` (string: 45)
- 94. `registrarIANAID` (string: unlimited) IANA ID of the registrar

### 2.1.3 Entity: simple domain WHOIS data

**File naming convention:** Quarterly and daily WHOIS csvs having "simple" in their name, broken down by TLDs

**Description:** Regular csv files of domain WHOIS data, subset of full data

- 1. `domainName` (string: 70) Domain Name

2. **registrarName (string: 512)** A domain name registrar is an organization or commercial entity that manages the reservation of Internet domain names.
3. **contactEmail (string: 256)** Contact email
4. **whoisServer (string: 512)** WHOIS server (from registry data)
5. **nameServers (string: unlimited)** WHOIS server (from registry data)
6. **createdDate (string: 200)** When the domain name was first registered/created
7. **updatedDate (string: 200)** When the domain WHOIS data were updated
8. **expiresDate (string: 200)** When the domain will expire
9. **standardRegCreatedDate (string: 200)** created date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
10. **standardRegUpdatedDate (string: 200)** updated date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
11. **standardRegExpiresDate (string: 200)** expires date in the standard format(YYYY-mm-dd), e.g. 2012-02-01
12. **status (string: unlimited)** Domain name EPP status codes, see also <https://www.icann.org/resources/pages/epp-status-codes-2014-06-16-en>
13. **Audit\_auditUpdatedDate: (string: 19)** the timestamp of when the whois record is collected in the standardFormat(YYYY-mm-dd), e.g. 2012-02-01
14. **registrant\_email (string: 256)**
15. **registrant\_name (string: 256)** The domain name registrant is the owner of the domain name. They are the ones who are responsible for keeping the entire WHOIS contact information up to date.
16. **registrant\_organization (string: 256)**
17. **registrant\_street1 (string: 256)**
18. **registrant\_street2 (string: 256)**
19. **registrant\_street3 (string: 256)**
20. **registrant\_street4 (string: 256)**
21. **registrant\_city (string: 64)**

22. registrant\_state (string: 45)
23. registrant\_postalCode (string: 45)
25. registrant\_country (string: 45)
26. registrant\_fax (string: 45)
27. registrant\_faxExt (string: 45)
28. registrant\_telephone (string: 45)
29. registrant\_telephoneExt (string: 45)
30. administrativeContact\_email (string: 256)
31. administrativeContact\_name (string: 256) The administrative contact is the person in charge of the administrative dealings pertaining to the company owning the domain name.
32. administrativeContact\_organization (string: 256)
33. administrativeContact\_street1 (string: 256)
34. administrativeContact\_street2 (string: 256)
35. administrativeContact\_street3 (string: 256)
36. administrativeContact\_street4 (string: 256)
37. administrativeContact\_city (string: 64)
38. administrativeContact\_state (string: 45)
39. administrativeContact\_postalCode (string: 45)
40. administrativeContact\_country (string: 45)
41. administrativeContact\_fax (string: 45)
42. administrativeContact\_faxExt (string: 45)
43. administrativeContact\_telephone (string: 45)
44. administrativeContact\_telephoneExt (string: 45)
45. registrarIANAID (string: unlimited) IANA ID of the registrar

## 2.2 Dataset: Domain WHOIS database in MySQL

**Data format:** MYSQL dump

**Brief description:** Quarterly and daily incremental domain WHOIS databases of gTLDs and ccTLDs

### 2.2.1 Entity: whois\_record

**File naming convention:** MySQL dumps in files described in the manuals under <http://www.domainwhoisdatabase.com/docs/>

**Description:** Domain WHOIS records

- whois\_record\_id (BIGINT: 20)** Primary key of whois\_record.
- created\_date (VARCHAR: 200)** When the domain name was first registered/created.
- updated\_date (VARCHAR: 200)** When the whois data was updated.
- expires\_date (VARCHAR: 200)** When the domain name will expire.
- admin\_contact\_id (BIGINT: 11)** Foreign key representing the id of the administrative contact for this whois\_record. It references the primary key in contact table. The administrative contact is person in charge of the administrative dealings pertaining to the company of the domain name.
- registrant\_id (BIGINT: 11)** Foreign key representing the id of the registrant for this whois\_record. It references the primary key in contact table. The domain name registrant is the owner of the domain name. They are the ones who are responsible for keeping the entire WHOIS contact information up to date.
- technical\_contact\_id (BIGINT: 11)** Foreign key representing the id of the technical contact for this whois\_record. It references the primary key in contact table. The technical contact is the person in charge of all technical questions regarding a particular domain name.
- zone\_contact\_id (BIGINT: 11)** Foreign key representing the id of the zone contact for this whois\_record. is the person who tends to the technical aspects of maintaining the domain's name server and resolver software, and database files.
- billing\_contact\_id (BIGINT: 11)** Foreign key representing the id of the billing contact for this whois\_record. It references the primary key in contact table. the billing contact is the individual who is authorized by the registrant to receive the invoice for domain name registration and domain name renewal fees.
- domain\_name (VARCHAR: 70)** Domain Name

**name\_servers (TEXT: unlimited)** Name servers or DNS servers for the domain name. The most important function of DNS servers is the translation (resolution) of human-memorable domain names and hostnames into the corresponding numeric Internet Protocol (IP) addresses.

**registry\_data\_id (BIGINT: 11)** Foreign key representing the id of the registry data. It references the primary key in registry\_data table. Registry Data is typically a whois record from a domain name registry. Each domain name has potentially up to 2 whois record, one from the registry and one from the registrar. Whois\_record(this table) represents the data from the registrar and registry\_data represents whois data collected from the whois registry. Note that registryData and WhoisRecord has almost identical data structures. Certain gtlds(eg. most of.com and .net) have both types of whois data while most cctlds have only registryData. Hence it's recommended to look under both WhoisRecord and registryData when searching for a piece of information(eg. registrant, createDate).

**status (TEXT: unlimited)** Domain name EPP status codes, see also <https://www.icann.org/resources/pages/epp-status-codes-2014-06-16-en>

**raw\_text (LONGTEXT: unlimited)** the complete raw text of the whois record

**audit\_created\_date (TIMESTAMP: unlimited)** the date this whois record is collected on whoisxmlapi.com, note this is different from WhoisRecord->createDate or WhoisRecord->registryData->createDate

**audit\_updated\_date (TIMESTAMP: unlimited)** the date this whois record is updated on whoisxmlapi.com, note this is different from WhoisRecord->updateDate or WhoisRecord->registryData->updateDate

**unparsable (LONGTEXT: unlimited)** the part of the raw text that is not parsable by our whois parser

**parse\_code (SMALLINT: 6)** a bitmask indicating which fields are parsed in this whois record. A binary value of 1 at index i represents a non empty value field at that index. The fields that this parse code bitmask represents are, from the least significant to most significant bit in this order: createDate, expiresDate, referralURL(exists in registryData only), registrarName, status,

updatedAt, whoisServer(exists in registryData only), nameServers, administrativeContact, billingContact, registrant, technicalContact, and zoneContact. For example, a parseCode of 3 (binary: 11) means that the only non-empty fields are createdDate and expiresDate. a parseCode of 8(binary:1000) means that the only non-empty field is registrarName. Note: the fields represented by the parseCode do not represent all fields exist in the whois record.

**header\_text (LONGTEXT: unlimited)** the header of the whois record is part of the raw text up until the first identifiable field.

**clean\_text (LONGTEXT: unlimited)** the stripped text of the whois record includes part of the raw excluding header and footer, this should only include identifiable fields.

**footer\_text (LONGTEXT: unlimited)** the footer of the whois record is part of the raw after the last identifiable field.

**registrar\_name (VARCHAR: 512)** A domain name registrar is an organization or commercial entity that manages the reservation of Internet domain names.

**data\_error (SMALLINT: 6)** an integer with the following meaning: 0=no data error 1=incomplete data; 2=missing whois data, it means that the domain name has no whois record in the registrar/registry 3=this domain name is a reserved word

**registry\_data\_id (BIGINT: 20)** Primary key of the registry\_data table, foreign key referencing this in the whois\_record table. Registry Data is typically a whois record from a domain name registry. Each domain name has potentially up to 2 whois record, one from the registry and one from the registrar. Whois\_record(this table) represents the datafrom the registrar and registry\_data represents whois data collected from the whois registry. Note that registryData and WhoisRecord has almost identical data structures. Certain gtlds(eg. most of.com and .net) have both types of whois data while most cctlds have only registryData. Hence it's recommended to look under both WhoisRecord and registryData when searching for a piece of information(eg. registrant, createdDate).

### 2.2.2 Entity: contact

**File naming convention:** Table in the domain WHOIS record MySQL dumps

**Description:** Contact data in domain WHOIS database

**contact\_id** (**BIGINT: 20**) Primary key for contacts  
**name** (**VARCHAR: 256**) Contact name  
**organization** (**VARCHAR: 256**) Contact's organization  
**street1** (**VARCHAR: 256**) Street address line 1  
**street2** (**VARCHAR: 256**) Street address line 2  
**street3** (**VARCHAR: 256**) Street address line 3  
**street4** (**VARCHAR: 256**) Street address line 4  
**city** (**VARCHAR: 64**)  
**state** (**VARCHAR: 45**)  
**postal\_code** (**VARCHAR: 45**)  
**country** (**VARCHAR: 45**)  
**email** (**VARCHAR: 256**)  
**telephone** (**VARCHAR: 45**)  
**telephone\_ext** (**VARCHAR: 45**)  
**fax** (**VARCHAR: 45**)  
**fax\_ext** (**VARCHAR: 45**)

### 2.2.3 Entity: registry\_data

**File naming convention:** Table in the domain WHOIS record MySQL dumps

**Description:** Registry WHOIS records

**created\_date** (**VARCHAR: 200**) When the domain name was first registered/created.  
**updated\_date** (**VARCHAR: 200**) When the whois data was updated.  
**expires\_date** (**VARCHAR: 200**) When the domain name will expire.

**admin\_contact\_id (BIGINT: 11)** Foreign key representing the id of the administrative contact for this whois\_record. It references the primary key in contact table. The administrative contact is person in charge of the administrative dealings pertaining to the company of the domain name.

**registrant\_id (BIGINT: 11)** Foreign key representing the id of the registrant for this whois\_record. It references the primary key in contact table. The domain name registrant is the owner of the domain name. They are the ones who are responsible for keeping the entire WHOIS contact information up to date.

**technical\_contact\_id (BIGINT: 11)** Foreign key representing the id of the technical contact for this whois\_record. It references the primary key in contact table. The technical contact is the person in charge of all technical questions regarding a particular domain name.

**zone\_contact\_id (BIGINT: 11)** Foreign key representing the id of the zone contact for this whois\_record. is the person who tends to the technical aspects of maintaining the domain's name server and resolver software, and database files.

**billing\_contact\_id (BIGINT: 11)** Foreign key representing the id of the billing contact for this whois\_record. It references the primary key in contact table. the billing contact is the individual who is authorized by the registrant to receive the invoice for domain name registration and domain name renewal fees.

**domain\_name (VARCHAR: 70)** Domain Name

**name\_servers (TEXT: unlimited)** Name servers or DNS servers for the domain name. The most important function of DNS servers is the translation (resolution) of human-memorable domain names and hostnames into the corresponding numeric Internet Protocol (IP) addresses.

**registry\_data\_id (BIGINT: 11)** Foreign key representing the id of the registry data. It references the primary key in registry\_data table. Registry Data is typically a whois record from a domain name registry. Each domain name has potentially up to 2 whois record, one from the registry and one from the registrar. Whois\_record(this table) represents the data from the registrar and registry\_data represents whois data collected from the

whois registry. Note that registryData and WhoisRecord has almost identical data structures. Certain gtlds(eg. most of.com and .net) have both types of whois data while most cctlds have only registryData. Hence it's recommended to look under both WhoisRecord and registryData when searching for a piece of information(eg. registrant, createDate).

**status (TEXT: unlimited)** Domain name EPP status codes, see also <https://www.icann.org/resources/pages/epp-status-codes-2014-06-16-en>

**raw\_text (LONGTEXT: unlimited)** the complete raw text of the whois record

**audit\_created\_date (TIMESTAMP: unlimited)** the date this whois record is collected on whoisxmlapi.com, note this is different from WhoisRecord->createDate or WhoisRecord->registryData->createDate

**audit\_updated\_date (TIMESTAMP: unlimited)** the date this whois record is updated on whoismxapi.com, note this is different from WhoisRecord->updateDate or WhoisRecord->registryData->updateDate

**unparsable (LONGTEXT: unlimited)** the part of the raw text that is not parsable by our whois parser

**parse\_code (SMALLINT: 6)** a bitmask indicating which fields are parsed in this whois record. A binary value of 1 at index i represents a non empty value field at that index. The fields that this parse code bitmask represents are, from the least significant to most significant bit in this order: createDate, expiresDate, referralURL(exists in registryData only), registrarName, status, updateDate, whoisServer(exists in registryData only), nameServers, administrativeContact, billingContact, registrant, technicalContact, and zoneContact. For example, a parseCode of 3 (binary: 11) means that the only non-empty fields are createDate and expiresDate. a parseCode of 8(binary:1000) means that the only non-empty field is registrarName. Note: the fields represented by the parseCode do not represent all fields exist in the whois record.

**header\_text (LONGTEXT: unlimited)** the header of the whois record is part of the raw text up until the first identifiable field.

**clean\_text (LONGTEXT: unlimited)** the stripped text of the whois record includes part of the raw excluding header and footer,

this should only include identifiable fields.

**footer\_text (LONGTEXT: unlimited)** the footer of the whois record is part of the raw after the last identifiable field.

**registrar\_name (VARCHAR: 512)** A domain name registrar is an organization or commercial entity that manages the reservation of Internet domain names.

**data\_error (SMALLINT: 6)** an integer with the following meaning: 0=no data error 1=incomplete data; 2=missing whois data, it means that the domain name has no whois record in the registrar/registry 3=this domain name is a reserved word

**registry\_data\_id (BIGINT: 20)** Primary key of the registry\_data table, foreign key referencing this in the whois\_record table. Registry Data is typically a whois record from a domain name registry. Each domain name has potentially up to 2 whois record, one from the registry and one from the registrar. Whois\_record(this table) represents the data from the registrar and registry\_data represents whois data collected from the whois registry. Note that registryData and WhoisRecord has almost identical data structures. Certain gtlds(eg. most of.com and .net) have both types of whois data while most cctlds have only registryData. Hence it's recommended to look under both WhoisRecord and registryData when searching for a piece of information(eg. registrant, createDate).

**whois\_server (VARCHAR: 512)** WHOIS server

**referral\_url (VARCHAR: 512)**

### 3 Product: DNS Database Download

**URL** <https://dns-database-download.whoisxmlapi.com/>

#### 3.1 Dataset: DNS database

**Data format:** CSV

**Brief description:** A passive DNS database

##### 3.1.1 Entity: Passive DNS record

**Description:** Record in the passive DNS database

1. **DOMAIN (string: unlimited)** Domain or subdomain name
2. **LAST\_UPDATE (string: unlimited)** UNIX timestamp of the last visit/update on current record.
3. **IP (string: unlimited)** A space-separated list of IP addresses

## 4 Product: IP Geolocation Data Feed

**URL** <https://ip-geolocation-database.whoisxmlapi.com/>

### 4.1 Dataset: IP geolocation database

**Data format:** JSONL

**Brief description:** An IP geolocation database updated weekly

#### 4.1.1 Entity: IP geolocation record

**File naming convention:** Format in which each database with IPv4 only is named: "geopify\_%DATE%.jsonl.gz", e.g. "geopify\_2018\_07\_30.jsonl.gz".  
 Format in which each database with both IPv4 and IPv6 is named: "geopify\_%DATE%\_v6.jsonl.gz", e.g. "geopify\_2018\_07\_30\_v6.jsonl.gz".

**Description:** Record in the IP geolocation database

**mark** Integer representation of the left border of the range (e.g. 19549440 for 1.42.77.0), this range continues up to 'mark' from next row

**isp** Internet Service Provider

**country** ISO-3166 2-letter Country Code (ZZ stands for unknown)

**region** Region

**city** City

**lat** Latitude

**lng** Longitude

**postalCode** Postal Code

**timezone** Timezone in the format "+10:00"

**geonameID** Id of location in the GeoNames database (<https://www.geonames.org/>). The field is omitted if the record is not found