Linux / Unix: Dig Command Find Out TTL (Time to Live) Value For DNS Records

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I would like to see the Time-to-live (TTL) value for a 'AAAA' and A record for domains. How do I see Time-to-live (TTL) for a DNS record under Unix or Linux operating systems using command line options?

[1]

Time to live (TTL) is a mechanism that limits the lifetime of dns records in the Domain Name System (DNS). It is set by an authoritative DNS server for particular resource record. The TTL is set in seconds and it is used by caching (recursive) dns server to speed up dns name resolution. You can use dig or host Unix dns lookup commands to find out ttl for any dns [4] resources.

Tutorial details	
Difficulty	Easy [2] (rss [3])
Root privileges	No
Requirements	dig or host

`dig` command syntax to find ttl

The syntax is

```
dig type name
dig @ns-name-server-here type name
dig [optipns] @ns-name-server-here type name
dig [options] type name
```

Examples

In this example, find out ttl for www.cyberciti.biz a recored:

```
dig a www.cyberciti.biz
```

Sample outputs:

```
dig a www.cyberciti.biz
; <<>> DiG 9.7.3 <<>> a www.cyberciti.biz
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 34721
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 4, ADDITIONAL: 4
;; QUESTION SECTION:
;www.cyberciti.biz.  IN A
;; ANSWER SECTION:
www.cyberciti.biz. 30 IN A 75.126.153.206
;; AUTHORITY SECTION:
cyberciti.biz.  161081 IN NS ns-1075.awsdns-06.org.
cyberciti.biz.  161081 IN NS ns-866.awsdns-44.net.
cyberciti.biz.  161081 IN NS ns-243.awsdns-30.com.
cyberciti.biz.  161081 IN NS ns-1947.awsdns-51.co.uk.
;; ADDITIONAL SECTION:
ns-243.awsdns-30.com. 161081 IN A 205.251.192.243
ns-866.awsdns-44.net. 161081 IN A 205.251.195.98
ns-1075.awsdns-06.org. 161081 IN A 205.251.196.51
ns-1947.awsdns-51.co.uk. 161081 IN A 205.251.199.155
;; Query time: 201 msec
```

```
;; SERVER: 127.0.0.1#53(127.0.0.1)
;; WHEN: Sat May  4 16:18:18 2013
;; MSG SIZE  rcvd: 255
```

For www.cyberciti.biz ttl is set to 30 seconds. To just find out ttl, use the following syntax:

```
dig +nocmd +noall +answer +ttlid type name-here
dig +nocmd +noall +answer +ttlid a www.cyberciti.biz
```

Sample outputs:

```
www.cyberciti.biz. 30 IN A 75.126.153.206
```

A few more examples:

```
## Find ttl for IPv6 record  ##
dig +nocmd +noall +answer +ttlid aaaa www.cyberciti.biz
www.cyberciti.biz. 592804 IN AAAA 2607:f0d0:1002:51::4

## Find ttl for mx record ##
dig +nocmd +noall +answer +ttlid mx www.cyberciti.biz
cyberciti.biz.  3555 IN MX 5 alt2.aspmx.l.google.com.
cyberciti.biz.  3555 IN MX 10 aspmx2.googlemail.com.
cyberciti.biz.  3555 IN MX 10 aspmx3.googlemail.com.
cyberciti.biz.  3555 IN MX 1 aspmx.l.google.com.
cyberciti.biz.  3555 IN MX 5 alt1.aspmx.l.google.com.
```

Where,

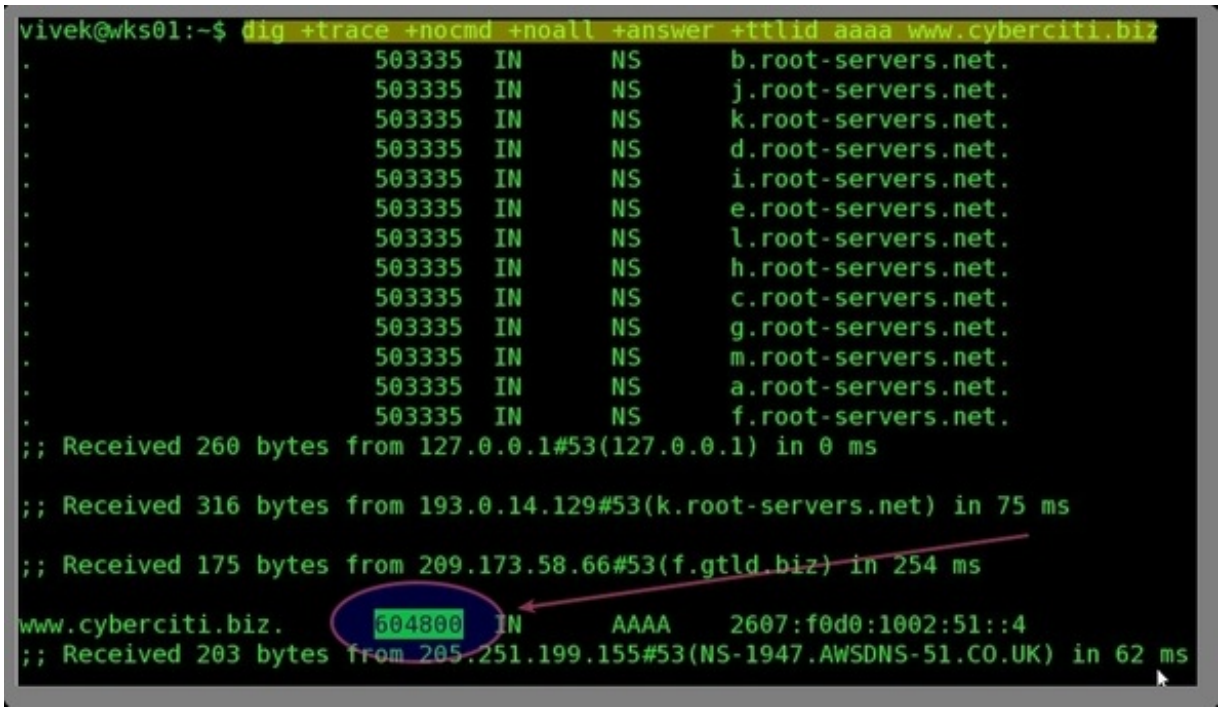
1. **+nocmd** - Toggles the printing of the initial comment in the output identifying the version of dig and the query options that have been applied. This comment is printed by default.
2. **+noall** - Set or clear all display flags.
3. **+answer** - Display [do not display] the answer section of a reply. The default is to display it.
4. **+ttlid** - Display [do not display] the TTL when printing the record.

A note about query directly to authoritative name server for ttl

You can skip caching recursive name server and get fresh ttl value using the following syntax:

```
dig +trace a www.cyberciti.biz
dig +trace +nocmd +noall +answer +ttlid aaaa www.cyberciti.biz
```

Sample outputs:



[5]

Fig.01: Displaying the ttl value for an IPV6 of www.cyberciti.biz

`host` command syntax to find ttl

The syntax is

```
host -a -t type name
```

Examples

To see ttl for an IPv6 recored for www.cyberciti.biz, enter:

```
$ host -a -t aaaa www.cyberciti.biz
```

Sample outputs:

```
Trying "www.cyberciti.biz"
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 57539
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 4, ADDITIONAL: 4

;; QUESTION SECTION:
;www.cyberciti.biz.  IN AAAA

;; ANSWER SECTION:
www.cyberciti.biz. 592445 IN AAAA 2607:f0d0:1002:51::4

;; AUTHORITY SECTION:
cyberciti.biz.  160433 IN NS ns-243.awsdns-30.com.
cyberciti.biz.  160433 IN NS ns-1075.awsdns-06.org.
cyberciti.biz.  160433 IN NS ns-1947.awsdns-51.co.uk.
cyberciti.biz.  160433 IN NS ns-866.awsdns-44.net.

;; ADDITIONAL SECTION:
ns-243.awsdns-30.com. 160433 IN A 205.251.192.243
ns-866.awsdns-44.net. 160433 IN A 205.251.195.98
ns-1075.awsdns-06.org. 160433 IN A 205.251.196.51
ns-1947.awsdns-51.co.uk. 160433 IN A 205.251.199.155

Received 267 bytes from 127.0.0.1#53 in 0 ms
```

The ttl for www.cyberciti.biz is set to 592445. A few more examples:

```
## Show an IPv4 a recored ##
host -a -t a www.cyberciti.biz

## Show max recored ##
host  -a -t mx cyberciti.biz

## Show cname recored
host -a -t cname s0.cyberciti.org
host  -a -t cname s13.cyberciti.org
```

See also

- Linux / UNIX: DNS Lookup Command [4]

Article printed from Frequently Asked Questions About Linux / UNIX: **http://www.cyberciti.biz/faq**

URL to article: **http://www.cyberciti.biz/faq/howto-use-dig-to-find-dns-time-to-live-ttl-values/**

URLs in this post:

[1] Image: **http://www.cyberciti.biz/faq/category/unix/**
[2] Easy: **http://www.cyberciti.biz/faq/tutorial-difficulty-level/easy/**
[3] rss: **http://www.cyberciti.biz/faq/tutorial-difficulty-level/easy/feed/**
[4] use dig or host Unix dns lookup commands to find out ttl for any dns: **http://www.cyberciti.biz/faq/unix-linux-dns-lookup-command/**
[5] Image: **http://s0.cyberciti.org/images/faq/2013/05/dig-time-to-live-ttl-for-a-dns-record.png**