

[howto](#), [dns](#), [reversedns](#), [soa](#)

How to find the Authoritative Reverse DNS Server for a specific IP Address

If “digging” for a reverse name yields a cached response... e.g. the following command returns “p50939d12.dip0.t-ipconnect.de.” as the reverse host name:

```
dig -x 80.147.157.18
```

```
; <<>> DiG 9.18.20 <<>> -x 80.147.157.18
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 42447
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1424
;; QUESTION SECTION:
;18.157.147.80.in-addr.arpa.      IN      PTR

;; ANSWER SECTION:
18.157.147.80.in-addr.arpa. 84065 IN      PTR      p50939d12.dip0.t-ipconnect.de.

;; Query time: 0 msec
;; SERVER: 192.168.1.1#53(192.168.1.1) (UDP)
;; WHEN: Thu Dec 28 14:53:53 CET 2023
;; MSG SIZE rcvd: 98
```

Get the authoritative DNS server for the address with the following command:

```
dig -t SOA 18.157.147.80.in-addr.arpa
```

```
; <<>> DiG 9.18.20 <<>> -t SOA 18.157.147.80.in-addr.arpa
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 44130
;; flags: qr rd ra; QUERY: 1, ANSWER: 0, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1424
;; QUESTION SECTION:
;18.157.147.80.in-addr.arpa.      IN      SOA

;; AUTHORITY SECTION:
157.147.80.in-addr.arpa. 3600 IN      SOA      pns.dtag.de. dns.telekom.de. 2023122801 86400 7200
3600000 3600

;; Query time: 833 msec
;; SERVER: 192.168.1.1#53(192.168.1.1) (UDP)
;; WHEN: Thu Dec 28 16:11:51 CET 2023
;; MSG SIZE rcvd: 114
```

Now you can direct dig to query the authoritative DNS server for the ip address:

```
dig @pns.dtag.de -x 80.147.157.18
```

```
; <<>> DiG 9.18.20 <<>> @pns.dtag.de -x 80.147.157.18
; (2 servers found)
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 5399
;; flags: qr aa rd; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
```

```
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
; COOKIE: 90230e600a10e52801000000658d907ced5542dfef8f1c5e (good)
;; QUESTION SECTION:
;18.157.147.80.in-addr.arpa.      IN      PTR

;; ANSWER SECTION:
18.157.147.80.in-addr.arpa. 86400 IN      PTR      vm100.wiretrip.de.

;; Query time: 13 msec
;; SERVER: 2003:40:8000::100#53(pns.dtag.de) (UDP)
;; WHEN: Thu Dec 28 16:13:00 CET 2023
;; MSG SIZE rcvd: 114
```

~~DISCUSSION~~

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