

Johannes' BIND page

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Intended purpose

bind (abb: **B**erkeley **I**nternet **N**ame **D**omain) is the preferred nameserver under Linux. As such its job is to

- translate hostnames into ip addresses (*forward mapping*)
- translate ip addresses into hostnames (*reverse mapping*)
- forward queries to other nameservers (*forwarding*)
- synchronize its database with other nameservers (*zone transferring*)

Minimal configuration

Task:

bind should

- know the clients in the private class-c net **192.168.42.*** in the domain **jfranken.de**
- have the hostnames of domain **baag** (into which I dial in from time to time) resolved at their nameserver.
- pass anything else to my ISP (t-online.de)

Solution:

- The central configuration file [/etc/bind/named.conf](#) defines my zones and any other nameservers
- just adopt the must-have-zones:
 - [/etc/bind/db.local](#)
 - [/etc/bind/db.127](#)
 - [/etc/bind/db.0](#)
 - [/etc/bind/db.255](#)
- Fit in your own zones:
 - [/etc/bind/db.192.168.42](#)
 - [/etc/bind/jfranken.de.](#)

Usage

- `/etc/init.d/bind start` calls `/usr/sbin/named.`
- `/usr/sbin/ndc reload` to reload the zone files.

Logfiles

see `/var/log/syslog` or `/var/log/messages`.

You can set the detail level for the logfiles in `named.conf`:

```
// reduce log verbosity on issues outside our control
logging {
    category lame-servers { null; };
    category cname { null; };
};
```

Advanced topics

Determining a remote DNS server's software

You can remotely determine the software a remote DNS server is running on:

```
$ dig @pns.dtag.de version.bind. txt CHAOS | grep -i "^v"
VERSION.BIND.          OS CHAOS TXT          "BIND 8.3.4"
```

Of course, you can also do that with bash and netcat:

```
$ whatdns() {
  printf 'begin-base64 644 -\np8IBAAABAAAAAAB3ZlcnNpb24EYmluZAAAEADCg==\n====' |
  uudecode | nc -uw 1 $1 domain | strings | tail -1; }
$ whatdns pns.dtag.de
BIND 8.3.4
$ whatdns 141.2.1.1
4.9.7
```

However, bind-admins can overwrite the version-field with arbitrary text by setting `options{version "...";}` in `named.conf`:

```
$ whatdns ns.jfranken.de
Surely you must be joking
```

Links

- [BIND Configuration File Guide](#)
- [comp.protocols.tcp-ip.domains FAQ](#)
- [BIND Project Homepage](#)
- [O'Reilly book *DNS and Bind*](#)