

AfNOG 2004 Dakar, Senegal

Track 1 - Scalable Internet Services

Domain Name System - Exercise 4

Setting up an Authoritative Master/Primary Name Server

In the previous exercise we setup a caching-only nameserver.
In this exercise we will setup an authoritative master/primary nameserver.

1. Choose a new domain: _____afnogws.gh

2. Change directory to /etc/namedb

```
# cd /etc/namedb
```

3. Create the primary and secondary zone file directories.

```
# mkdir m
# mkdir s
# chown bind:bind m s
```

4. Create the zone file for your domain <domain-name>.afnogws.gh.

```
# vi m/<domain-name>.afnogws.gh
```

5. Add the following lines to the <domain-name>.afnogws.gh file. Replace all instances of "<domain-name>" with the domain name that you have selected to use, and "#" with your pc number.

```
$TTL 10m
@      IN      SOA      pc#.t1.ws.afnog.org.  root.pc#.t1.ws.afnog.org.  (
                                2004051800    ;serial YYYYMMDDnn
                                30m          ;refresh
                                10m          ;retry
                                4w           ;expire
                                10m          ;nttl
                                )

      IN      NS       pc#.t1.ws.afnog.org.    ; Master Nameserver

www   IN      A       84.201.31.#           ; Your own IP Address
```

Note:

we have chosen purposely low values for TTL, refresh, retry. For a production domain you would use higher values, e.g. \$TTL 1d

6. Edit the `/etc/namedb/named.conf` to configure your machine as a master nameserver. The entries you make at the end of the `/etc/namedb/named.conf` file are as follows.

```
zone "<domain-name>.afnogws.gh" {
    type master;
    file "m/<domain-name>.afnogws.gh";
    allow-transfer { 84.201.31.#; };
};
```

Note:

Replace `<domain-name>` with your master/primary zone on the worksheet or one that you have selected to use.

7. Load the zone file.

```
# ndc reload
```

8. Check if named is running by issuing the following command.

```
# ps -auxw | grep named
```

9. Check if named started without any errors.

```
# tail /var/log/messages
```

If there are any errors correct them and reload the zone file.

10. Check that you are giving authoritative answers for your domain.

```
# dig +norec @84.201.31.# <domain-name>.afnogws.gh. soa
```

```
# dig +norec @84.201.31.# <domain-name>.afnogws.gh. ns
```

```
# dig +norec @84.201.31.# <domain-name>.afnogws.gh. a
```

Check that you get an AA (authoritative Answer).

This takes us to the next exercise where you will be setting up a slave/secondary nameserver.