

# How hard is to setup a validating resolver?

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.nz Registry Services



# Yesterday, Lunch time

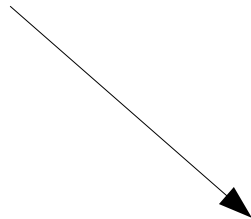
```
Jan 30 13:02:02 planetp NetworkManager[1329]: <info> Auto-activating connection 'NZNOG2014'.
```

```
Jan 30 13:02:03 planetp NetworkManager[1329]: <info> address 124.157.68.63
```

```
Jan 30 13:02:03 planetp NetworkManager[1329]: <info> prefix 23 (255.255.254.0)
```

```
Jan 30 13:02:03 planetp NetworkManager[1329]: <info> gateway 124.157.68.1
```

```
Jan 30 13:02:03 planetp NetworkManager[1329]: <info> nameserver '8.8.8.8'
```



Google DNS



# Introducing: Raspberry PI



# Configuring Raspberry PI

- Download Raspbian
- Copy image to SD card
- Edit /etc/network/interfaces to use static address
- Plug SD card into Pi
- Power-on
- ssh pi@<address>
- Change default password



# Configuring validating resolver

```
sudo apt-get install unbound dnstools
sudo vim /etc/default/unbound
RESOLVCONF_FORWARDERS=false
```

```
sudo vim /etc/unbound/unbound.conf
interface: 124.157.68.2
access-control: 124.157.68.0/23 allow
num-threads: 4
statistics-interval: 10
```

```
sudo service unbound restart
```



# Yesterday, Afternoon tea

```
Jan 30 16:08:35 planetp NetworkManager[1329]: <info>  
Activation (wlan0) starting connection 'NZNOG2014'
```

```
Jan 30 16:08:37 planetp NetworkManager[1329]: <info>  
address 124.157.68.63
```

```
Jan 30 16:08:37 planetp NetworkManager[1329]: <info>  
prefix 23 (255.255.254.0)
```

```
Jan 30 16:08:37 planetp NetworkManager[1329]: <info>  
gateway 124.157.68.1
```

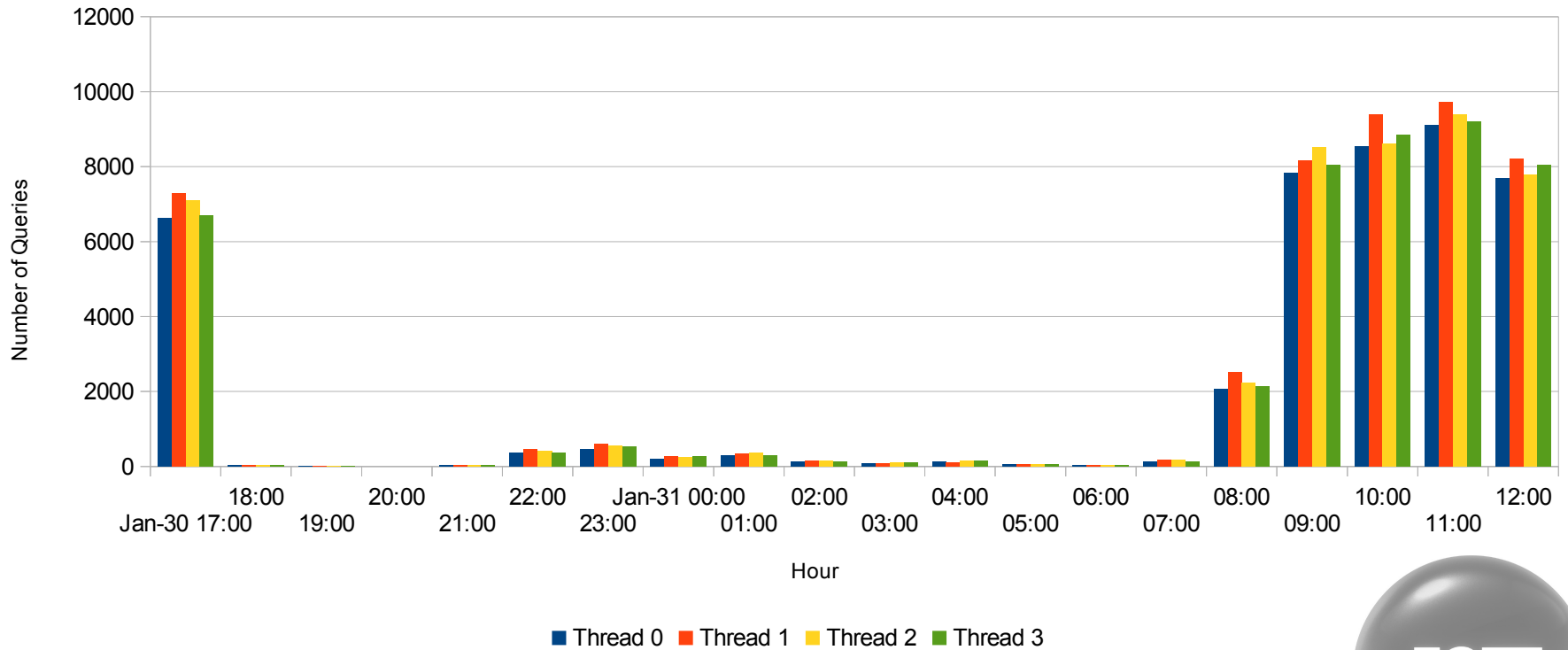
```
Jan 30 16:08:37 planetp NetworkManager[1329]: <info>  
nameserver '124.157.68.2'
```

```
Jan 30 16:08:37 planetp NetworkManager[1329]: <info>  
nameserver '8.8.8.8'
```



# Usage

Queries @ Pi



# Validation

```
dig a www.unleash.net.nz @124.157.68.2 +dnssec
```

```
; <<>> DiG 9.8.1-P1 <<>> a www.unleash.net.nz @124.157.68.2 +dnssec
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: NOERROR, id: 4491
;; flags: qr rd ra ad; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 1
```

```
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags: do; udp: 4096
;; QUESTION SECTION:
;www.unleash.net.nz.      IN      A
```

```
;; ANSWER SECTION:
www.unleash.net.nz. 86400  IN      A      202.6.116.100
www.unleash.net.nz. 86400  IN      RRSIG  A 8 4 86400 20140213000000 20140130000000 37830
unleash.net.nz. Ixk3Dlf2f08dKd677c15jpChDWF4Z6nQbLp6e0yCxS86pGV+HUexzvm
KdfTGMykJQv0rfqaByH8PstwmOias6bm3xNnBkPCfM8dVZsA/LKaKiiJ
PjCfywlZs6cfyjxUaMc2NCI5rs0ARvv/F9whGlKZv4iK4jmOgfA+mMny Fz4=
```

```
;; Query time: 205 msec
;; SERVER: 124.157.68.2#53(124.157.68.2)
```

AD

Answer and signature.  
Thanks Unleash for signing!





# To finish

Cache hit ratio: 40 to 70%

Response time: not too good, some reports of flakiness

That's all. Thanks for participating in the experiment

