# Google The EDNS Client Subnet

### publicdns.google.com



- Part of Google's "make the web faster" initiative
- Based on the same code that does large-scale DNS resolution for the web crawler
- 8.8.8.8, 8.8.4.4
  - fairly easy to remember :-)
- Added IPv6 VIPs before World IPv6 Day
  - O 2001:4860:4860::8844
  - 2001:4860:4860::8888
  - not quite as easy to remember :-/

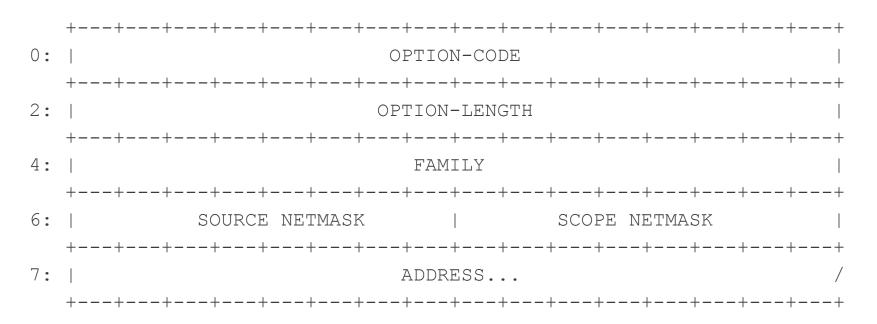
# **Client Subnet Option**



- Internet-Draft:
  - o <u>http://tools.ietf.org/html/draft-vandergaast-edns-client-subnet</u>
- Like HTTP X-Forwarded-For header for DNS
  but without appending a chaining of resolver IPs
- Allows website operators to better gauge client locality
  e.g., requests from large recursive DNS services
- Currently being used by:
  - Google Public DNS, OpenDNS, Bitgravity, more...
  - <u>http://www.afasterinternet.com/participants.htm</u>

# **Option format**

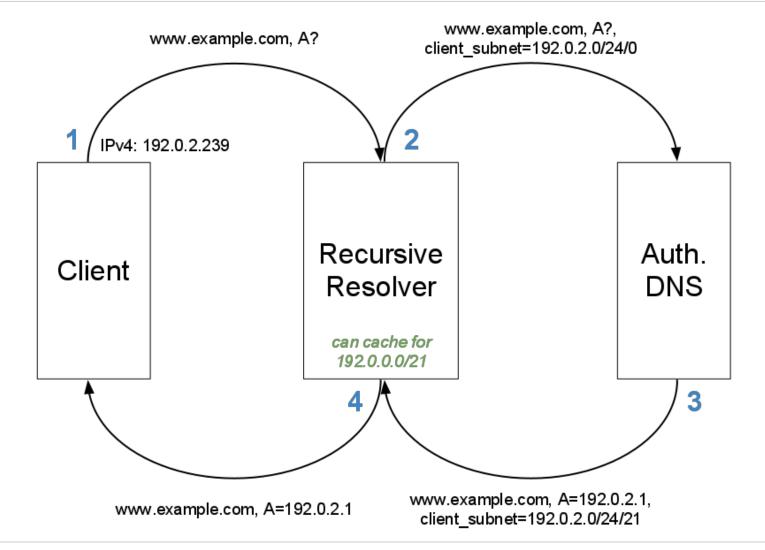




- current (unofficial) option code for testing: 0x50fa
- family numbers per <u>IANA</u> (IPv4=1, IPv6=2)
- source and scope netmasks == CIDR prefix lengths

### **Theory of operation**





## Find out more



• For more information about the EDNS Client Subnet option, visit (英語だけ):

#### http://www.afasterinternet.com/

- Contains:
  - FAQ
  - latest revision of the IETF draft
  - mailing list
  - o link to a patch for ISC's BIND dig(1) command
  - o more...

