

```
159 22.326089      0.863124      192.168.1.1      192.168.1.15      DNS      539      Standard query response 0x5232 A
www.univie.ac.at A 131.130.70.8 NS g.root-servers.net NS f.root-servers.net NS l.root-servers.net NS d.root-servers.net NS a.root-servers.net
NS b.root-servers.net NS i.root-servers.net NS c.root-servers.net NS h.root-servers.net NS e.root-servers.net NS k.root-servers.net NS
m.root-servers.net NS j.root-servers.net A 198.41.0.4 AAAA 2001:503:ba3e::2:30 A 192.228.79.201 AAAA 2001:500:84::b A 192.33.4.12 AAAA
2001:500:2::c A 199.7.91.13 AAAA 2001:500:2d::d A 192.203.230.10 AAAA 2001:500:a8::e A 192.5.5.241
Frame 159: 539 bytes on wire (4312 bits), 539 bytes captured (4312 bits) on interface 0
Interface id: 0 (\Device\NPF_{B398B5E9-6C31-4206-9C35-6D0F66E255A3})
Encapsulation type: Ethernet (1)
Arrival Time: Mar 13, 2017 18:58:43.136892000 SE Asia Standard Time
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1489406323.136892000 seconds
[Time delta from previous captured frame: 0.541937000 seconds]
[Time delta from previous displayed frame: 0.863124000 seconds]
[Time since reference or first frame: 22.326089000 seconds]
Frame Number: 159
Frame Length: 539 bytes (4312 bits)
Capture Length: 539 bytes (4312 bits)
[Frame is marked: False]
[Frame is ignored: False]
[Protocols in frame: eth:ethertype:ip:udp:dns]
[Coloring Rule Name: UDP]
[Coloring Rule String: udp]
Ethernet II, Src: Fiberhom_ff:d5:30 (18:a3:e8:ff:d5:30), Dst: HonHaiPr_d6:a4:11 (38:b1:db:d6:a4:11)
Destination: HonHaiPr_d6:a4:11 (38:b1:db:d6:a4:11)
Address: HonHaiPr_d6:a4:11 (38:b1:db:d6:a4:11)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Source: Fiberhom_ff:d5:30 (18:a3:e8:ff:d5:30)
Address: Fiberhom_ff:d5:30 (18:a3:e8:ff:d5:30)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 192.168.1.1, Dst: 192.168.1.15
0100 .... = Version: 4
.... 0101 = Header Length: 20 bytes (5)
Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
0000 00.. = Differentiated Services Codepoint: Default (0)
.... 00.. = Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 525
Identification: 0x89a5 (35237)
Flags: 0x02 (Don't Fragment)
0... .... = Reserved bit: Not set
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
Fragment offset: 0
Time to live: 252
Protocol: UDP (17)
Header checksum: 0x6fd9 [validation disabled]
[Header checksum status: Unverified]
Source: 192.168.1.1
Destination: 192.168.1.15
[Source GeoIP: Unknown]
[Destination GeoIP: Unknown]
User Datagram Protocol, Src Port: 53, Dst Port: 58439
Source Port: 53
Destination Port: 58439
Length: 505
Checksum: 0xb825 [unverified]
[Checksum Status: Unverified]
[Stream index: 11]
Domain Name System (response)
[Request In: 141]
[Time: 0.863124000 seconds]
Transaction ID: 0x5232
Flags: 0x8180 Standard query response, No error
1... .... = Response: Message is a response
.000 0... = Opcode: Standard query (0)
.... 0... = Authoritative: Server is not an authority for domain
.... 0... = Truncated: Message is not truncated
.... 0... = Recursion desired: Do query recursively
.... 1... = Recursion available: Server can do recursive queries
.... 0... = Z: reserved (0)
.... 0... = Answer authenticated: Answer/authority portion was not authenticated by the server
.... 0... = Non-authenticated data: Unacceptable
.... 0000 = Reply code: No error (0)
Questions: 1
Answer RRs: 1
Authority RRs: 13
Additional RRs: 11
Queries
www.univie.ac.at: type A, class IN
Name: www.univie.ac.at
[Name Length: 16]
[Label Count: 4]
Type: A (Host Address) (1)
Class: IN (0x0001)
Answers
www.univie.ac.at: type A, class IN, addr 131.130.70.8
Name: www.univie.ac.at
Type: A (Host Address) (1)
Class: IN (0x0001)
Time to live: 600
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Data length: 4
Address: 131.130.70.8
Authoritative nameservers
<Root>: type NS, class IN, ns g.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 20
Name Server: g.root-servers.net
<Root>: type NS, class IN, ns f.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: f.root-servers.net
<Root>: type NS, class IN, ns l.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: l.root-servers.net
<Root>: type NS, class IN, ns d.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: d.root-servers.net
<Root>: type NS, class IN, ns a.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: a.root-servers.net
<Root>: type NS, class IN, ns b.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: b.root-servers.net
<Root>: type NS, class IN, ns i.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: i.root-servers.net
<Root>: type NS, class IN, ns c.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: c.root-servers.net
<Root>: type NS, class IN, ns h.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: h.root-servers.net
<Root>: type NS, class IN, ns e.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: e.root-servers.net
<Root>: type NS, class IN, ns k.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: k.root-servers.net
<Root>: type NS, class IN, ns m.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
Data length: 4
Name Server: m.root-servers.net
<Root>: type NS, class IN, ns j.root-servers.net
Name: <Root>
Type: NS (authoritative Name Server) (2)
Class: IN (0x0001)
Time to live: 5605
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Data length: 4
Name Server: j.root-servers.net
Additional records
a.root-servers.net: type A, class IN, addr 198.41.0.4
  Name: a.root-servers.net
  Type: A (Host Address) (1)
  Class: IN (0x0001)
  Time to live: 91553
  Data length: 4
  Address: 198.41.0.4
a.root-servers.net: type AAAA, class IN, addr 2001:503:ba3e::2:30
  Name: a.root-servers.net
  Type: AAAA (IPv6 Address) (28)
  Class: IN (0x0001)
  Time to live: 169789
  Data length: 16
  AAAA Address: 2001:503:ba3e::2:30
b.root-servers.net: type A, class IN, addr 192.228.79.201
  Name: b.root-servers.net
  Type: A (Host Address) (1)
  Class: IN (0x0001)
  Time to live: 325844
  Data length: 4
  Address: 192.228.79.201
b.root-servers.net: type AAAA, class IN, addr 2001:500:84::b
  Name: b.root-servers.net
  Type: AAAA (IPv6 Address) (28)
  Class: IN (0x0001)
  Time to live: 184708
  Data length: 16
  AAAA Address: 2001:500:84::b
c.root-servers.net: type A, class IN, addr 192.33.4.12
  Name: c.root-servers.net
  Type: A (Host Address) (1)
  Class: IN (0x0001)
  Time to live: 138315
  Data length: 4
  Address: 192.33.4.12
c.root-servers.net: type AAAA, class IN, addr 2001:500:2::c
  Name: c.root-servers.net
  Type: AAAA (IPv6 Address) (28)
  Class: IN (0x0001)
  Time to live: 246150
  Data length: 16
  AAAA Address: 2001:500:2::c
d.root-servers.net: type A, class IN, addr 199.7.91.13
  Name: d.root-servers.net
  Type: A (Host Address) (1)
  Class: IN (0x0001)
  Time to live: 246150
  Data length: 4
  Address: 199.7.91.13
d.root-servers.net: type AAAA, class IN, addr 2001:500:2d::d
  Name: d.root-servers.net
  Type: AAAA (IPv6 Address) (28)
  Class: IN (0x0001)
  Time to live: 592200
  Data length: 16
  AAAA Address: 2001:500:2d::d
e.root-servers.net: type A, class IN, addr 192.203.230.10
  Name: e.root-servers.net
  Type: A (Host Address) (1)
  Class: IN (0x0001)
  Time to live: 325844
  Data length: 4
  Address: 192.203.230.10
e.root-servers.net: type AAAA, class IN, addr 2001:500:a8::e
  Name: e.root-servers.net
  Type: AAAA (IPv6 Address) (28)
  Class: IN (0x0001)
  Time to live: 244814
  Data length: 16
  AAAA Address: 2001:500:a8::e
f.root-servers.net: type A, class IN, addr 192.5.5.241
  Name: f.root-servers.net
  Type: A (Host Address) (1)
  Class: IN (0x0001)
  Time to live: 396638
  Data length: 4
  Address: 192.5.5.241
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