```
No.
       Time
                       Source
                                             Destination
                                                                    Protocol Length Info
     7 3.437080
                       192.168.1.248
                                             192.168.1.1
                                                                                    Standard query 0x0001 PTR 1.1.168.192.in-
addr.arpa
Frame 7: 84 bytes on wire (672 bits), 84 bytes captured (672 bits) on interface \Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790},
id 0
Ethernet II, Src: IntelCor_2a:85:0f (0c:54:15:2a:85:0f), Dst: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f)
Internet Protocol Version 4, Src: 192.168.1.248, Dst: 192.168.1.1
User Datagram Protocol, Src Port: 64468, Dst Port: 53
Domain Name System (query)
   Transaction ID: 0x0001
   Flags: 0x0100 Standard query
   Questions: 1
   Answer RRs: 0
   Authority RRs: 0
   Additional RRs: 0
   Queries
   [Response In: 8]
No.
       Time
                       Source
                                             Destination
                                                                    Protocol Length Info
                                                                                   Standard query response 0x0001 PTR
     8 3.441534
                       192.168.1.1
                                             192.168.1.248
                                                                    DNS
                                                                             543
1.1.168.192.in-addr.arpa PTR router.lan NS b.root-servers.net NS c.root-servers.net NS d.root-servers.net NS 1
h.root-servers.net NS i.root-servers.net NS g.root-servers.net NS j.root-servers.net NS k.root-servers.net NS a.root-servers.net NS
e.root-servers.net NS f.root-servers.net NS m.root-servers.net A 192.168.1.1 A 199.9.14.201 A 192.33.4.12 A 199.7.91.13 A
199.7.83.42 A 198.97.190.53 A 192.36.148.17 A 192.112.36.4 A 192.58.128.30 A 193.0.14.129 A 198.41.0.4 A 192.203.230.10 A
192.5.5.241 A 202.12.27.33
Frame 8: 543 bytes on wire (4344 bits), 543 bytes captured (4344 bits) on interface
\Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790}, id 0
Ethernet II, Src: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f), Dst: IntelCor_2a:85:0f (0c:54:15:2a:85:0f)
Internet Protocol Version 4, Src: 192.168.1.1, Dst: 192.168.1.248
User Datagram Protocol, Src Port: 53, Dst Port: 64468
Domain Name System (response)
   Transaction ID: 0x0001
   Flags: 0x8180 Standard query response, No error
   Answer RRs: 1
   Authority RRs: 13
   Additional RRs: 14
   Queries
   Answers
       1.1.168.192.in-addr.arpa: type PTR, class IN, router.lan
   Authoritative nameservers
       <Root>: type NS, class IN, ns b.root-servers.net
       <Root>: type NS, class IN, ns c.root-servers.net
        <Root>: type NS, class IN, ns d.root-servers.net
       <Root>: type NS, class IN, ns 1.root-servers.net
       <Root>: type NS, class IN, ns h.root-servers.net
       <Root>: type NS, class IN, ns i.root-servers.net
       <Root>: type NS, class IN, ns g.root-servers.net
       <Root>: type NS, class IN, ns j.root-servers.net
<Root>: type NS, class IN, ns k.root-servers.net
       <Root>: type NS, class IN, ns a.root-servers.net
       <Root>: type NS, class IN, ns e.root-servers.net
       <Root>: type NS, class IN, ns f.root-servers.net
<Root>: type NS, class IN, ns m.root-servers.net
   Additional records
       router.lan: type A, class IN, addr 192.168.1.1
       b.root-servers.net: type A, class IN, addr 199.9.14.201
       c.root-servers.net: type A, class IN, addr 192.33.4.12
       d.root-servers.net: type A, class IN, addr 199.7.91.13
       1.root-servers.net: type A, class IN, addr 199.7.83.42
       h.root-servers.net: type A, class IN, addr 198.97.190.53
       i.root-servers.net: type A, class IN, addr 192.36.148.17
       g.root-servers.net: type A, class IN, addr 192.112.36.4
       j.root-servers.net: type A, class IN, addr 192.58.128.30
       k.root-servers.net: type A, class IN, addr 193.0.14.129
       a.root-servers.net: type A, class IN, addr 198.41.0.4
       e.root-servers.net: type A, class IN, addr 192.203.230.10
       f.root-servers.net: type A, class IN, addr 192.5.5.241
       m.root-servers.net: type A, class IN, addr 202.12.27.33
   [Request In: 7]
   [Time: 0.004454000 seconds]
No.
       Time
                       Source
                                              Destination
                                                                     Protocol Length Info
     9 3,444082
                       192.168.1.248
                                             192.168.1.1
                                                                                     Standard query 0x0002
                                                                             87
A www.mit.edu.infopulse.local
Frame 9: 87 bytes on wire (696 bits), 87 bytes captured (696 bits) on interface \Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790},
Ethernet II, Src: IntelCor_2a:85:0f (0c:54:15:2a:85:0f), Dst: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f)
Internet Protocol Version 4, Src: 192.168.1.248, Dst: 192.168.1.1
User Datagram Protocol, Src Port: 64469, Dst Port: 53
Domain Name System (query)
   Transaction ID: 0x0002
   Flags: 0x0100 Standard query
   Questions: 1
   Answer RRs: 0
   Authority RRs: 0
   Additional RRs: 0
```

```
Queries
   [Response In: 10]
No.
       Time
                       Source
                                             Destination
                                                                   Protocol Length Info
    10 3.448579
                      192.168.1.1
                                             192.168.1.248
                                                                            87
                                                                                   Standard query response 0x0002 No such name
A www.mit.edu.infopulse.local
Frame 10: 87 bytes on wire (696 bits), 87 bytes captured (696 bits) on interface \Device\NPF {F1D61087-7F2C-4F27-8B56-6B866DE51790},
id 0
Ethernet II, Src: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f), Dst: IntelCor_2a:85:0f (0c:54:15:2a:85:0f)
Internet Protocol Version 4, Src: 192.168.1.1, Dst: 192.168.1.248
User Datagram Protocol, Src Port: 53, Dst Port: 64469
Domain Name System (response)
   Transaction ID: 0x0002
   Flags: 0x8183 Standard query response, No such name
   Questions: 1
   Answer RRs: 0
   Authority RRs: 0
   Additional RRs: 0
   Queries
   [Request In: 9]
   [Time: 0.004497000 seconds]
No.
                                             Destination
                                                                   Protocol Length Info
       Time
                      Source
    11 3.448992
                       192.168.1.248
                                             192.168.1.1
                                                                   DNS
                                                                            87
                                                                                    Standard query 0x0003
AAAA www.mit.edu.infopulse.local
Frame 11: 87 bytes on wire (696 bits), 87 bytes captured (696 bits) on interface \Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790},
id 0
Ethernet II, Src: IntelCor_2a:85:0f (0c:54:15:2a:85:0f), Dst: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f)
Internet Protocol Version 4, Src: 192.168.1.248, Dst: 192.168.1.1
User Datagram Protocol, Src Port: 64470, Dst Port: 53
Domain Name System (query)
   Transaction ID: 0x0003
   Flags: 0x0100 Standard query
   Ouestions: 1
   Answer RRs: 0
   Authority RRs: 0
   Additional RRs: 0
   Oueries
   [Response In: 12]
No.
       Time
                       Source
                                             Destination
                                                                   Protocol Length Info
    12 3.450569
                       192.168.1.1
                                             192.168.1.248
                                                                   DNS
                                                                            87
                                                                                    Standard query response 0x0003 No such name
AAAA www.mit.edu.infopulse.local
Frame 12: 87 bytes on wire (696 bits), 87 bytes captured (696 bits) on interface \Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790},
id 0
Ethernet II, Src: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f), Dst: IntelCor_2a:85:0f (0c:54:15:2a:85:0f)
Internet Protocol Version 4, Src: 192.168.1.1, Dst: 192.168.1.248
User Datagram Protocol, Src Port: 53, Dst Port: 64470
Domain Name System (response)
   Transaction ID: 0x0003
   Flags: 0x8183 Standard query response, No such name
   Questions: 1
   Answer RRs: 0
   Authority RRs: 0
   Additional RRs: 0
   Oueries
   [Request In: 11]
   [Time: 0.001577000 seconds]
No.
       Time
                       Source
                                             Destination
                                                                   Protocol Length Info
    13 3.450957
                       192.168.1.248
                                                                   DNS
                                                                                   Standard query 0x0004 A www.mit.edu
                                             192.168.1.1
                                                                            71
Frame 13: 71 bytes on wire (568 bits), 71 bytes captured (568 bits) on interface \Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790},
id 0
Ethernet II, Src: IntelCor_2a:85:0f (0c:54:15:2a:85:0f), Dst: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f)
Internet Protocol Version 4, Src: 192.168.1.248, Dst: 192.168.1.1
User Datagram Protocol, Src Port: 64471, Dst Port: 53
Domain Name System (query)
   Transaction ID: 0x0004
   Flags: 0x0100 Standard query
   Questions: 1
   Answer RRs: 0
   Authority RRs: 0
   Additional RRs: 0
   Oueries |
   [Response In: 14]
No.
                                             Destination
                                                                   Protocol Length Info
       Time
                       Source
    14 3.490450
                       192.168.1.1
                                             192.168.1.248
                                                                   DNS
                                                                            576
                                                                                   Standard query response 0x0004 A www.mit.edu
CNAME www.mit.edu.edgekey.net CNAME e9566.dscb.akamaiedge.net A 104.103.94.234 NS c.root-servers.net NS d.root-servers.net NS
l.root-servers.net NS h.root-servers.net NS i.root-servers.net NS g.root-servers.net NS j.root-servers.net NS k.root-servers.net NS
a.root-servers.net NS e.root-servers.net NS f.root-servers.net NS m.root-servers.net NS b.root-servers.net A 192.33.4.12 A
199.7.91.13 A 199.7.83.42 A 198.97.190.53 A 192.36.148.17 A 192.112.36.4 A 192.58.128.30 A 193.0.14.129 A 198.41.0.4 A
192.203.230.10 A 192.5.5.241 A 202.12.27.33 A 199.9.14.201
Frame 14: 576 bytes on wire (4608 bits), 576 bytes captured (4608 bits) on interface
\Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790}, id 0
Ethernet II, Src: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f), Dst: IntelCor_2a:85:0f (0c:54:15:2a:85:0f)
Internet Protocol Version 4, Src: 192.168.1.1, Dst: 192.168.1.248
User Datagram Protocol, Src Port: 53, Dst Port: 64471
Domain Name System (response)
   Transaction ID: 0x0004
```

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Flags: 0x8180 Standard query response, No error
   Ouestions: 1
   Answer RRs: 3
   Authority RRs: 13
   Additional RRs: 13
   Oueries
   Answers
       www.mit.edu: type CNAME, class IN, cname www.mit.edu.edgekey.net
       www.mit.edu.edgekey.net: type CNAME, class IN, cname e9566.dscb.akamaiedge.net
       e9566.dscb.akamaiedge.net: type A, class IN, addr 104.103.94.234
   Authoritative nameservers
       <Root>: type NS, class IN, ns c.root-servers.net
       <Root>: type NS, class IN, ns d.root-servers.net
       <Root>: type NS, class IN, ns l.root-servers.net
       <Root>: type NS, class IN, ns h.root-servers.net
       <Root>: type NS, class IN, ns i.root-servers.net
       <Root>: type NS, class IN, ns g.root-servers.net
       <Root>: type NS, class IN, ns j.root-servers.net
       <Root>: type NS, class IN, ns k.root-servers.net
       <Root>: type NS, class IN, ns a.root-servers.net
       <Root>: type NS, class IN, ns e.root-servers.net
       <Root>: type NS, class IN, ns f.root-servers.net
       <Root>: type NS, class IN, ns m.root-servers.net
       <Root>: type NS, class IN, ns b.root-servers.net
   Additional records
       c.root-servers.net: type A, class IN, addr 192.33.4.12
       d.root-servers.net: type A, class IN, addr 199.7.91.13
       1.root-servers.net: type A, class IN, addr 199.7.83.42
       h.root-servers.net: type A, class IN, addr 198.97.190.53
       i.root-servers.net: type A, class IN, addr 192.36.148.17
       g.root-servers.net: type A, class IN, addr 192.112.36.4
       j.root-servers.net: type A, class IN, addr 192.58.128.30
       k.root-servers.net: type A, class IN, addr 193.0.14.129
       a.root-servers.net: type A, class IN, addr 198.41.0.4
       e.root-servers.net: type A, class IN, addr 192.203.230.10
       f.root-servers.net: type A, class IN, addr 192.5.5.241
       m.root-servers.net: type A, class IN, addr 202.12.27.33
       b.root-servers.net: type A, class IN, addr 199.9.14.201
   [Request In: 13]
   [Time: 0.039493000 seconds]
       Time
                      Source
                                             Destination
                                                                   Protocol Length Info
    15 3.497252
                      192.168.1.248
                                             192.168.1.1
                                                                   DNS
                                                                           71
                                                                                   Standard guery 0x0005 AAAA www.mit.edu
Frame 15: 71 bytes on wire (568 bits), 71 bytes captured (568 bits) on interface \Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790},
Ethernet II, Src: IntelCor_2a:85:0f (0c:54:15:2a:85:0f), Dst: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f)
Internet Protocol Version 4, Src: 192.168.1.248, Dst: 192.168.1.1
User Datagram Protocol, Src Port: 64472, Dst Port: 53
Domain Name System (query)
   Transaction ID: 0x0005
   Flags: 0x0100 Standard query
   Questions: 1
   Answer RRs: 0
   Authority RRs: 0
   Additional RRs: 0
   Oueries
   [Response In: 16]
                      Source
                                            Destination
                                                                   Protocol Length Info
       Time
    16 3.536047
                      192.168.1.1
                                             192.168.1.248
                                                                   DNS
                                                                            648
                                                                                   Standard query response 0x0005 AAAA www.mit.edu
CNAME www.mit.edu.edgekey.net CNAME e9566.dscb.akamaiedge.net AAAA 2a02:26f0:d8:3a2::255e AAAA 2a02:26f0:d8:389::255e NS d.root-
servers.net NS 1.root-servers.net NS h.root-servers.net NS i.root-servers.net NS g.root-servers.net NS j.root-servers.net NS k.root-
servers.net NS a.root-servers.net NS e.root-servers.net NS f.root-servers.net NS m.root-servers.net NS b.root-servers.net NS c.root-
servers.net A 104.103.94.234 A 104.103.94.234 A 199.7.91.13 A 199.7.83.42 A 198.97.190.53 A 192.36.148.17 A 192.112.36.4 A
192.58.128.30 A 193.0.14.129 A 198.41.0.4 A 192.203.230.10 A 192.5.5.241 A 202.12.27.33 A 199.9.14.201 A 192.33.4.12
Frame 16: 648 bytes on wire (5184 bits), 648 bytes captured (5184 bits) on interface
\Device\NPF_{F1D61087-7F2C-4F27-8B56-6B866DE51790}, id 0
Ethernet II, Src: Routerbo_06:3e:4f (c4:ad:34:06:3e:4f), Dst: IntelCor_2a:85:0f (0c:54:15:2a:85:0f)
Internet Protocol Version 4, Src: 192.168.1.1, Dst: 192.168.1.248
User Datagram Protocol, Src Port: 53, Dst Port: 64472
Domain Name System (response)
   Transaction ID: 0x0005
   Flags: 0x8180 Standard query response, No error
   Questions: 1
   Answer RRs: 4
   Authority RRs: 13
   Additional RRs: 15
   Oueries 4 1
       www.mit.edu: type CNAME, class IN, cname www.mit.edu.edgekey.net
       www.mit.edu.edgekey.net: type CNAME, class IN, cname e9566.dscb.akamaiedge.net
       e9566.dscb.akamaiedge.net: type AAAA, class IN, addr 2a02:26f0:d8:3a2::255e
       e9566.dscb.akamaiedge.net: type AAAA, class IN, addr 2a02:26f0:d8:389::255e
   Authoritative nameservers
       <Root>: type NS, class IN, ns d.root-servers.net
       <Root>: type NS, class IN, ns l.root-servers.net
```

Nο.

No.

<Root>: type NS, class IN, ns h.root-servers.net

```
<Root>: type NS, class IN, ns i.root-servers.net
    <Root>: type NS, class IN, ns g.root-servers.net
    <Root>: type NS, class IN, ns j.root-servers.net
    <Root>: type NS, class IN, ns k.root-servers.net
    <Root>: type NS, class IN, ns a.root-servers.net
    <Root>: type NS, class IN, ns e.root-servers.net
    <Root>: type NS, class IN, ns f.root-servers.net
    <Root>: type NS, class IN, ns m.root-servers.net
    <Root>: type NS, class IN, ns b.root-servers.net
    <Root>: type NS, class IN, ns c.root-servers.net
Additional records
    e9566.dscb.akamaiedge.net: type A, class IN, addr 104.103.94.234
    e9566.dscb.akamaiedge.net: type A, class IN, addr 104.103.94.234
    d.root-servers.net: type A, class IN, addr 199.7.91.13
    1.root-servers.net: type A, class IN, addr 199.7.83.42
    h.root-servers.net: type A, class IN, addr 198.97.190.53
    i.root-servers.net: type A, class IN, addr 192.36.148.17
    g.root-servers.net: type A, class IN, addr 192.112.36.4
    j.root-servers.net: type A, class IN, addr 192.58.128.30
    k.root-servers.net: type A, class IN, addr 193.0.14.129
    a.root-servers.net: type A, class IN, addr 198.41.0.4 e.root-servers.net: type A, class IN, addr 192.203.230.10
    f.root-servers.net: type A, class IN, addr 192.5.5.241
    m.root-servers.net: type A, class IN, addr 202.12.27.33
    b.root-servers.net: type A, class IN, addr 199.9.14.201 c.root-servers.net: type A, class IN, addr 192.33.4.12
[Request In: 15]
[Time: 0.038795000 seconds]
```