Lab₀

1.IP 地址

en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500 options=400<CHANNEL_IO> ether f8:ff:c2:00:d4:c2

inet6 fe80::5:3e9d:c83c:5a77%en0 prefixlen 64 secured scopeid 0x6 inet 192.168.101.10 netmask 0xffffff00 broadcast 192.168.101.255

nd6 options=201<PERFORMNUD,DAD>

media: autoselect status: active

en5: flags=8863<UP, BROADCAST, SMART, RUNNING, SIMPLEX, MULTICAST> mtu 1500

ether ac:de:48:00:11:22

inet6 fe80::aede:48ff:fe00:1122%en5 prefixlen 64 scopeid 0x4

nd6 options=201<PERFORMNUD,DAD>

media: autoselect (100baseTX <full-duplex>)

status: active

 $awd 10: \ flags = 8943 < UP, BROADCAST, RUNNING, PROMISC, SIMPLEX, MULTICAST> \ mtu \ 1484$

options=400<CHANNEL_IO>
ether a6:1c:54:f9:7c:ec

inet6 fe80::a41c:54ff:fef9:7cec%awdl0 prefixlen 64 scopeid 0x8

nd6 options=201<PERFORMNUD, DAD>

media: autoselect status: active

 $11 \verb|w0: flags=8863<| UP, BROADCAST, SMART, RUNNING, SIMPLEX, MULTICAST> \verb|mtu| 1500|$

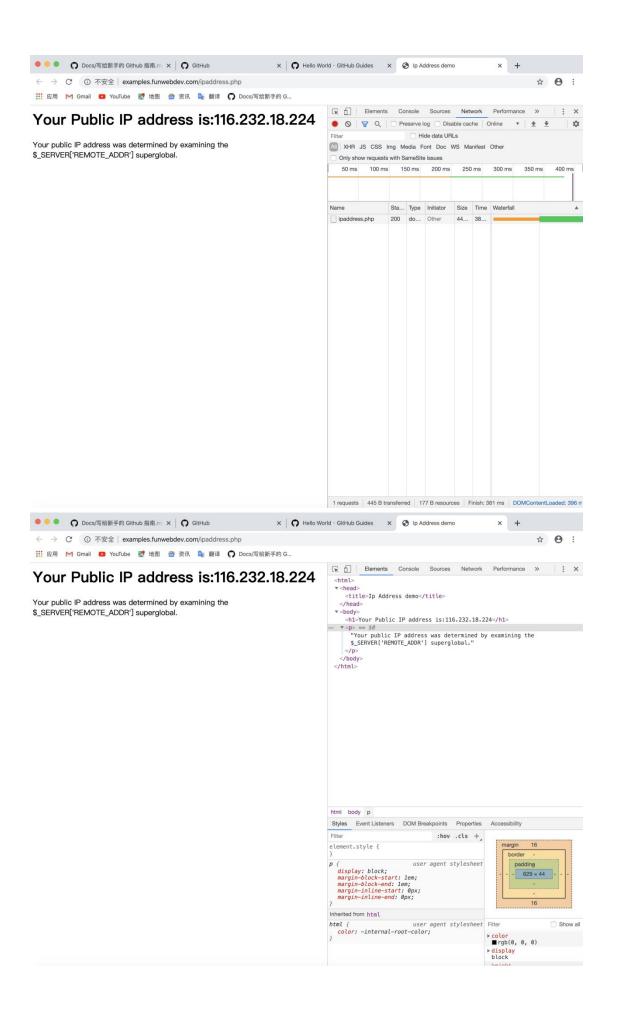
options=400<CHANNEL_IO>
ether a6:1c:54:f9:7c:ec

inet6 fe80::a41c:54ff:fef9:7cec%llw0 prefixlen 64 scopeid 0x9

nd6 options=201<PERFORMNUD,DAD>

media: autoselect status: active

2.分析一个网页的组成部分



3.域名服务器

(1)

Last login: Wed Feb 26 09:18:48 on ttys000

[jingjing@jingjingdeMacBook-Pro ~ % nslookup baidu.com

Server: 192.168.101.1 Address: 192.168.101.1#53

Non-authoritative answer:

Name: baidu.com Address: 220.181.38.148 Name: baidu.com Address: 39.156.69.79

(2)

↑ jingjing — -zsh — 80×24

Last login: Fri Feb 28 10:53:47 on ttys004

[jingjing@jingjingdeMacBook-Pro ~ % nslookup -type=ns baidu.com

Server: 192.168.101.1 Address: 192.168.101.1#53

Non-authoritative answer:

baidu.com nameserver = ns4.baidu.com.
baidu.com nameserver = ns3.baidu.com.
baidu.com nameserver = dns.baidu.com.
baidu.com nameserver = ns2.baidu.com.
baidu.com nameserver = ns7.baidu.com.

(3)

jingjing@jingjingdeMacBook-Pro ~ % nslookup baidu.com ns2.baidu.com

Server: ns2.baidu.com Address: 220.181.33.31#53

Name: baidu.com Address: 220.181.38.148

Name: baidu.com Address: 39.156.69.79

(4)

jingjing@jingjingdeMacBook-Pro ~ % nslookup 114.114.114.114

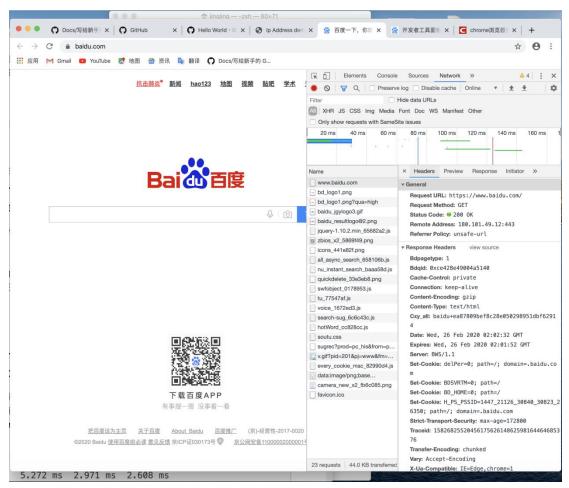
Server: 192.168.101.1 Address: 192.168.101.1#53

Non-authoritative answer:

114.114.114.114.in-addr.arpa name = public1.114dns.com.

Authoritative answers can be found from:

4.观察 HTTP 标头



5.追踪数据包

(1)

```
↑ jingjing — traceroute microsoft.com — 80×71

Last login: Wed Feb 26 09:21:17 on ttvs000
jingjing@jingjingdeMacBook-Pro ~ % traceroute microsoft.com
traceroute: Warning: microsoft.com has multiple addresses; using 40.76.4.15
traceroute to microsoft.com (40.76.4.15), 64 hops max, 52 byte packets
1 192.168.101.1 (192.168.101.1) 3.528 ms 4.320 ms 4.016 ms
2 192.168.1.1 (192.168.1.1) 8.034 ms 5.249 ms 4.421 ms
3 61.152.2.106 (61.152.2.106) 7.567 ms
    61.152.51.206 (61.152.51.206) 35.781 ms
    61.152.2.106 (61.152.2.106) 9.585 ms
 4 61.152.3.21 (61.152.3.21) 8.330 ms
    61.152.2.105 (61.152.2.105) 11.706 ms
    61.152.2.109 (61.152.2.109) 8.039 ms
5 101.95.120.150 (101.95.120.150) 10.302 ms
    101.95.120.206 (101.95.120.206) 8.189 ms
    101.95.88.14 (101.95.88.14) 8.891 ms
  202.97.94.237 (202.97.94.237) 25.356 ms
    202.97.57.229 (202.97.57.229) 6.854 ms
    202.97.24.190 (202.97.24.190) 25.056 ms
   202.97.33.134 (202.97.33.134) 7.387 ms 14.526 ms 9.365 ms
8 202.97.91.110 (202.97.91.110)
                                  37.996 ms
    202.97.63.114 (202.97.63.114)
                                   36.838 ms
    202.97.6.6 (202.97.6.6) 53.681 ms
    203.215.232.174 (203.215.232.174) 48.754 ms 46.674 ms 45.940 ms
10
   ae20-0.icr02.hkg20.ntwk.msn.net (104.44.237.203) 47.722 ms 46.767 ms 50.5
76 ms
   be-122-0.ibr02.hkg20.ntwk.msn.net (104.44.11.147) 263.474 ms
    be-122-0.ibr02.hkg31.ntwk.msn.net (104.44.11.137)
                                                       297.347 ms
    be-102-0.ibr01.hkg31.ntwk.msn.net (104.44.11.121) 262.453 ms
12 be-10-0.ibr02.tyo79.ntwk.msn.net (104.44.17.192) 259.915 ms
                                                      302.592 ms
    be-11-0.ibr01.tyo79.ntwk.msn.net (104.44.17.134)
                                                                  297.613 ms
   be-10-0.ibr02.tyo79.ntwk.msn.net (104.44.17.192) 420.411 ms
    be-6-0.ibr02.tyo30.ntwk.msn.net (104.44.17.183) 293.116 ms
    be-10-0.ibr02.tyo79.ntwk.msn.net (104.44.17.192) 299.700 ms
   be-6-0.ibr02.tyo30.ntwk.msn.net (104.44.17.183) 225.740 ms
    be-5-0.ibr01.tyo30.ntwk.msn.net (104.44.17.191)
                                                     282.347 ms 296.943 ms
   be-4-0.ibr01.sn1.ntwk.msn.net (104.44.17.72) 306.734 ms
    be-8-0.ibr02.sn1.ntwk.msn.net (104.44.17.74)
                                                  225.425 ms *
   be-3-0.ibr02.atl30.ntwk.msn.net (104.44.19.114) 216.163 ms
    be-10-0.ibr01.atl30.ntwk.msn.net (104.44.18.220) 230.636 ms
    be-3-0.ibr02.atl30.ntwk.msn.net (104.44.19.114) 215.388 ms
   * be-6-0.ibr01.bn6.ntwk.msn.net (104.44.17.230) 245.146 ms
    be-6-0.ibr02.bn6.ntwk.msn.net (104.44.17.232) 271.480 ms
   be-6-0.ibr01.bn6.ntwk.msn.net (104.44.17.230) 297.484 ms
be-6-0.ibr02.bn6.ntwk.msn.net (104.44.17.232) 307.058 ms
    be-2-0.ibr03.bl20.ntwk.msn.net (104.44.19.5) 221.512 ms
   be-2-0.ibr04.bl20.ntwk.msn.net (104.44.19.153) 277.177 ms
    ae160-0.icr01.bl20.ntwk.msn.net (104.44.22.210) 299.582 ms 215.131 ms
   * * *
21 * * *
22
   * * *
23
   * * *
24
25
   * *
26
   * *
27
28
   * * *
29
   * *
30
   * * *
31
   * * *
32
33
34
   * *
35
    * *
36
   * *
37
38
   * *
39
    * *
41
   * * *
42
   * * *
   * * *
```

🁚 jingjing — -zsh — 80×71 Last login: Wed Feb 26 09:50:09 on ttvs000 jingjing@jingjingdeMacBook-Pro ~ % whois tencent.com % IANA WHOIS server % for more information on IANA, visit http://www.iana.org % This query returned 1 object whois.verisign-grs.com refer: domain: organisation: VeriSign Global Registry Services 12061 Bluemont Way address: address: Reston Virginia 20190 address: United States contact: administrative Registry Customer Service name: organisation: VeriSign Global Registry Services address: 12061 Bluemont Way address: Reston Virginia 20190 address: United States phone: +1 703 925-6999 fax-no: +1 703 948 3978 e-mail: info@verisign-grs.com contact: name: Registry Customer Service organisation: VeriSign Global Registry Services 12061 Bluemont Way address: Reston Virginia 20190 address: address: United States +1 703 925-6999 phone: +1 703 948 3978 fax-no: e-mail: info@verisign-grs.com nserver: A.GTLD-SERVERS.NET 192.5.6.30 2001:503:a83e:0:0:0:2:30 nserver: B.GTLD-SERVERS.NET 192.33.14.30 2001:503:231d:0:0:0:2:30 C.GTLD-SERVERS.NET 192.26.92.30 2001:503:83eb:0:0:0:0:30 nserver: nserver: D.GTLD-SERVERS.NET 192.31.80.30 2001:500:856e:0:0:0:0:30 nserver: E.GTLD-SERVERS.NET 192.12.94.30 2001:502:1ca1:0:0:0:0:30 F.GTLD-SERVERS.NET 192.35.51.30 2001:503:d414:0:0:0:0:30 nserver: G.GTLD-SERVERS.NET 192.42.93.30 2001:503:eea3:0:0:0:0:30 nserver: H.GTLD-SERVERS.NET 192.54.112.30 2001:502:8cc:0:0:0:0:30 nserver: nserver: I.GTLD-SERVERS.NET 192.43.172.30 2001:503:39c1:0:0:0:0:30 J.GTLD-SERVERS.NET 192.48.79.30 2001:502:7094:0:0:0:0:30 nserver: K.GTLD-SERVERS.NET 192.52.178.30 2001:503:d2d:0:0:0:0:30 nserver. L.GTLD-SERVERS.NET 192.41.162.30 2001:500:d937:0:0:0:0:30 nserver: M.GTLD-SERVERS.NET 192.55.83.30 2001:501:b1f9:0:0:0:0:30 nserver: ds-rdata: 30909 8 2 E2D3C916F6DEEAC73294E8268FB5885044A833FC5459588F4A9184CF C41A5766 whois: whois.verisign-grs.com ACTIVE status: Registration information: http://www.verisigninc.com remarks: created: 1985-01-01 2017-10-05 changed: source: IANA # whois.verisign-grs.com Domain Name: TENCENT.COM Registry Domain ID: 3216596_DOMAIN_COM-VRSN Registrar WHOIS Server: whois.markmonitor.com Registrar URL: http://www.markmonitor.com Updated Date: 2019-08-12T09:11:43Z Creation Date: 1998-09-14T04:00:00Z Registry Expiry Date: 2021-09-13T04:00:00Z Registrar: MarkMonitor Inc.

Registrar IANA ID: 292

```
🁚 jingjing — -zsh — 80×71
   Registrar Abuse Contact Email: abusecomplaints@markmonitor.com
   Registrar Abuse Contact Phone: +1.2083895740
   Domain Status: clientDeleteProhibited https://icann.org/epp#clientDeleteProhi
bited
   Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferP
rohibited
   Domain Status: clientUpdateProhibited https://icann.org/epp#clientUpdateProhi
   Domain Status: serverDeleteProhibited https://icann.org/epp#serverDeleteProhi
bited
   Domain Status: serverTransferProhibited https://icann.org/epp#serverTransferP
rohibited
   Domain Status: serverUpdateProhibited https://icann.org/epp#serverUpdateProhi
bited
   Name Server: NS1.QQ.COM
   Name Server: NS2.QQ.COM
   Name Server: NS3.QQ.COM
   Name Server: NS4.QQ.COM
   DNSSEC: unsigned
   URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of whois database: 2020-02-26T01:58:23Z <<<
# whois.markmonitor.com
Domain Name: tencent.com
Registry Domain ID: 3216596_DOMAIN_COM-VRSN
Registrar WHOIS Server: whois.markmonitor.com
Registrar URL: http://www.markmonitor.com
Updated Date: 2019-08-12T02:11:43-0700
Creation Date: 1998-09-13T21:00:00-0700
Registrar Registration Expiration Date: 2021-09-12T00:00:00-0700
Registrar: MarkMonitor, Inc.
Registrar IANA ID: 292
Registrar Abuse Contact Email: abusecomplaints@markmonitor.com
Registrar Abuse Contact Phone: +1.2083895770
Domain Status: clientUpdateProhibited (https://www.icann.org/epp#clientUpdatePro
hibited)
Domain Status: clientTransferProhibited (https://www.icann.org/epp#clientTransfe
rProhibited)
Domain Status: clientDeleteProhibited (https://www.icann.org/epp#clientDeletePro
hibited)
Domain Status: serverUpdateProhibited (https://www.icann.org/epp#serverUpdatePro
hibited)
Domain Status: serverTransferProhibited (https://www.icann.org/epp#serverTransfe
rProhibited)
Domain Status: serverDeleteProhibited (https://www.icann.org/epp#serverDeletePro
Registrant Organization: Tencent Technology (shenzhen) Co.Ltd.
Registrant State/Province: Guang Dong
Registrant Country: CN
Registrant Email: Select Request Email Form at https://domains.markmonitor.com/w
hois/tencent.com
Admin Organization: Tencent Technology (shenzhen) Co.Ltd.
Admin State/Province: Guang Dong
Admin Country: CN
Admin Email: Select Request Email Form at https://domains.markmonitor.com/whois/
tencent.com
Tech Organization: Tencent Technology (shenzhen) Co.Ltd.
Tech State/Province: Guang Dong
Tech Country: CN
Tech Email: Select Request Email Form at https://domains.markmonitor.com/whois/t
encent.com
Name Server: ns1.qq.com
Name Server: ns3.qq.com
Name Server: ns4.qq.com
Name Server: ns2.qq.com
DNSSEC: unsigned
URL of the ICANN WHOIS Data Problem Reporting System: http://wdprs.internic.net/
>>> Last update of WHOIS database: 2020-02-25T17:59:11-0800 <<
jingjing@jingjingdeMacBook-Pro ~ %
```