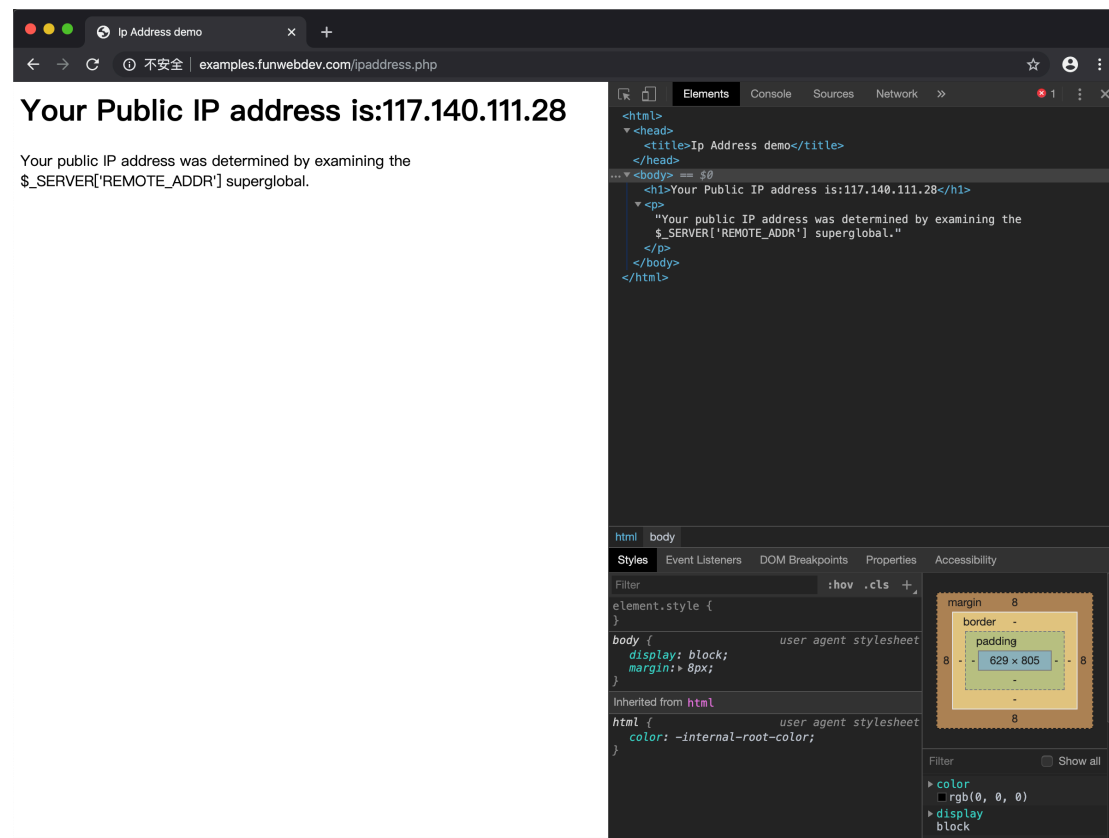


此电脑的 IP 地址：

```
en0: flags=8863<UP,BROADCAST,SMART,RUNNING,SIMPLEX,MULTICAST> mtu 1500
    options=400<CHANNEL_IO>
    ether 38:f9:d3:84:28:da
    inet6 fe80::1450:aa3a:d32d:5962%en0 prefixlen 64 secured scopeid 0x6
    inet 192.168.1.6 netmask 0xffffffff broadcast 192.168.1.255
    nd6 options=201<PERFORMNUD,DAD>
    media: autoselect
    status: active
```

分析网页的组成部分：



查询 baidu.com 的 A 地址记录截图：

```
Server:      192.168.1.1
Address:     192.168.1.1#53

Non-authoritative answer:
Name:   baidu.com
Address: 39.156.69.79
Name:   baidu.com
Address: 220.181.38.148
```

查询 baidu.com 的域名服务器截图：

```
Non-authoritative answer:
baidu.com      nameserver = dns.baidu.com.
baidu.com      nameserver = ns3.baidu.com.
baidu.com      nameserver = ns7.baidu.com.
baidu.com      nameserver = ns4.baidu.com.
baidu.com      nameserver = ns2.baidu.com.
```

使用授权服务器查询 baidu.com 的 IP 地址截图：

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

观察 HTTP 标头：

```
User-Agent: Mozilla/5.0 (Macintosh; Intel Mac
OS X 10_15_3) AppleWebKit/537.36 (KHTML, li
ke Gecko) Chrome/78.0.3904.97 Safari/537.3
6
```

发往 Microsoft.com 的数据包追踪：

```
[traceroute to microsoft.com (40.112.72.205), 64 hops max, 52 byte packets
 1 192.168.1.1 (192.168.1.1) 2.337 ms 1.998 ms 1.973 ms
 2 10.13.128.1 (10.13.128.1) 4.583 ms 7.849 ms 6.500 ms
 3 221.180.69.81 (221.180.69.81) 5.908 ms 6.222 ms 6.896 ms
 4 218.204.1.97 (218.204.1.97) 5.740 ms
 218.204.1.57 (218.204.1.57) 7.403 ms
 218.204.1.49 (218.204.1.49) 5.809 ms
 5 221.183.19.81 (221.183.19.81) 8.277 ms
 221.183.19.77 (221.183.19.77) 5.577 ms 6.215 ms
 6 221.183.11.53 (221.183.11.53) 16.528 ms
 218.204.2.14 (218.204.2.14) 5.809 ms
 218.204.2.10 (218.204.2.10) 16.026 ms
 7 221.176.22.114 (221.176.22.114) 44.485 ms
 221.176.24.102 (221.176.24.102) 19.625 ms *
 8 221.183.11.142 (221.183.11.142) 119.252 ms
 221.176.22.114 (221.176.22.114) 50.945 ms
 221.183.11.33 (221.183.11.33) 15.861 ms
 9 221.176.24.158 (221.176.24.158) 54.539 ms
 221.183.30.134 (221.183.30.134) 29.558 ms
 221.176.22.234 (221.176.22.234) 17.194 ms
10 223.118.2.214 (223.118.2.214) 30.467 ms 24.750 ms 24.498 ms
11 223.118.2.214 (223.118.2.214) 23.428 ms
 223.119.0.174 (223.119.0.174) 50.557 ms
 223.118.2.214 (223.118.2.214) 26.264 ms
12 223.119.0.174 (223.119.0.174) 48.623 ms
 223.118.2.214 (223.118.2.214) 26.291 ms
 223.119.0.174 (223.119.0.174) 47.928 ms
13 be-100-0.ibr01.hkg20.ntwk.msn.net (104.44.11.135) 275.414 ms
 ae24-0.icr01.hkg20.ntwk.msn.net (104.44.237.201) 73.532 ms 53.565 ms
14 be-4-0.ibr01.sg3.ntwk.msn.net (104.44.16.236) 307.857 ms
 be-120-0.ibr02.hkg20.ntwk.msn.net (104.44.11.151) 284.874 ms
 ae24-0.icr01.hkg20.ntwk.msn.net (104.44.237.201) 51.448 ms
15 * be-100-0.ibr01.hkg20.ntwk.msn.net (104.44.11.135) 274.484 ms
 be-1-0.ibr01.sg2.ntwk.msn.net (104.44.7.13) 273.105 ms
16 * be-1-0.ibr01.sg2.ntwk.msn.net (104.44.7.13) 278.628 ms
 be-14-0.ibr02.mrs20.ntwk.msn.net (104.44.17.65) 322.636 ms
17 * be-3-0.ibr01.par30.ntwk.msn.net (104.44.7.47) 381.813 ms
 be-1-0.ibr02.sg2.ntwk.msn.net (104.44.7.19) 299.810 ms
18 be-14-0.ibr01.mrs20.ntwk.msn.net (104.44.17.67) 333.237 ms
 be-5-0.ibr01.lon22.ntwk.msn.net (104.44.17.77) 286.919 ms 286.879 ms
19 be-3-0.ibr01.par30.ntwk.msn.net (104.44.7.47) 278.888 ms
 be-8-0.ibr01.dub07.ntwk.msn.net (104.44.17.84) 284.139 ms 279.836 ms
20 be-3-0.ibr01.par30.ntwk.msn.net (104.44.7.47) 280.920 ms *
 be-8-0.ibr01.dub07.ntwk.msn.net (104.44.17.84) 287.481 ms
21 * be-8-0.ibr01.dub07.ntwk.msn.net (104.44.17.84) 280.428 ms
 ae100-0.icr01.dub07.ntwk.msn.net (104.44.11.60) 331.835 ms
```

利用 whois 查询 tencent.com 的相关信息：

```
% IANA WHOIS server
% for more information on IANA, visit http://www.iana.org
% This query returned 1 object

refer:      whois.verisign-grs.com

domain:     COM

organisation: VeriSign Global Registry Services
address:    12061 Bluemont Way
address:    Reston Virginia 20190
address:    United States

contact:    administrative
name:       Registry Customer Service
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:    technical
name:       Registry Customer Service
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

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
nserver:    C.GTLD-SERVERS.NET 192.26.92.30 2001:503:83eb:0:0:0:0:30
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
nserver:    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:    I.GTLD-SERVERS.NET 192.43.172.30 2001:503:39c1:0:0:0:0:30
nserver:    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
ds-rdata:   30909 8 2 E2D3C916F6DEEAC73294E8268FB5885044A833FC5459588F4A9184CFC41A5766

whois:      whois.verisign-grs.com

status:     ACTIVE
remarks:    Registration information: http://www.verisigninc.com

created:    1985-01-01
changed:    2017-10-05
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
Registrar Abuse Contact Email: abusecomplaints@markmonitor.com
Registrar Abuse Contact Phone: +1.2083895740
Domain Status: clientDeleteProhibited https://icann.org/epp#clientDeleteProhibited
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
```


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
Registrar Abuse Contact Email: abusecomplaints@markmonitor.com
Registrar Abuse Contact Phone: +1.2083895740
Domain Status: clientDeleteProhibited https://icann.org/epp#clientDeleteProhibited
Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
Domain Status: clientUpdateProhibited https://icann.org/epp#clientUpdateProhibited
Domain Status: serverDeleteProhibited https://icann.org/epp#serverDeleteProhibited
Domain Status: serverTransferProhibited https://icann.org/epp#serverTransferProhibited
Domain Status: serverUpdateProhibited https://icann.org/epp#serverUpdateProhibited
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: 2020-02-24T01:48:00Z <<<

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#clientUpdateProhibited)
Domain Status: clientTransferProhibited (https://www.icann.org/epp#clientTransferProhibited)
Domain Status: clientDeleteProhibited (https://www.icann.org/epp#clientDeleteProhibited)
Domain Status: serverUpdateProhibited (https://www.icann.org/epp#serverUpdateProhibited)
Domain Status: serverTransferProhibited (https://www.icann.org/epp#serverTransferProhibited)
Domain Status: serverDeleteProhibited (https://www.icann.org/epp#serverDeleteProhibited)
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/whois/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/tencent.com
Name Server: ns4.qq.com
Name Server: ns3.qq.com
Name Server: ns1.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: 2020-02-23T17:48:07-0800 <<<