

wget

```
$ wget -c ftp://debian.ustc.edu.cn/debian/tools/loadlin.exe
--2019-04-23 18:57:33--  ftp://debian.ustc.edu.cn/debian/tools/loadlin.exe
                         => "loadlin.exe"
正在解析主机 debian.ustc.edu.cn (debian.ustc.edu.cn)... 202.38.95.110,
2001:da8:d800:95::110
正在连接 debian.ustc.edu.cn (debian.ustc.edu.cn)|202.38.95.110|:21... 已连接。
正在以 anonymous 登录 ... 登录成功!
==> SYST ... 完成。 ==> PWD ... 完成。
==> TYPE I ... 完成。 ==> CWD (1) /debian/tools ... 完成。
==> SIZE loadlin.exe ... 42370
==> PASV ... 完成。 ==> RETR loadlin.exe ... 完成。
长度: 42370 (41K) (非正式数据)
```

```
loadlin.exe          100%[=====] 41.38K ---KB/s 用时 0.1s
```

```
2019-04-23 18:57:34 (330 KB/s) - "loadlin.exe" 已保存 [42370]
```

```
$ wget -b ftp://debian.ustc.edu.cn/debian/tools/loadlin.exe
继续在后台运行, pid 为 1880。
将把输出写入至 "wget-log"。
```

```
$ wget -xrA "*.txt" ftp://debian.ustc.edu.cn/debian/tools
--2019-04-23 18:58:40--  ftp://debian.ustc.edu.cn/debian/tools
                         => "debian.ustc.edu.cn/debian/.listing"
正在解析主机 debian.ustc.edu.cn (debian.ustc.edu.cn)... 202.38.95.110,
2001:da8:d800:95::110
正在连接 debian.ustc.edu.cn (debian.ustc.edu.cn)|202.38.95.110|:21... 已连接。
正在以 anonymous 登录 ... 登录成功!
==> SYST ... 完成。 ==> PWD ... 完成。
==> TYPE I ... 完成。 ==> CWD (1) /debian ... 完成。
==> PASV ... 完成。 ==> LIST ... 完成。
```

```
debian.ustc.edu.cn/      [ <=> ]    1.04K ---KB/s 用时 0s
```

```
2019-04-23 18:58:40 (13.7 MB/s) - "debian.ustc.edu.cn/debian/.listing" 已保存
[1064]
```

已删除 "debian.ustc.edu.cn/debian/.listing"。

拒绝 "README"。

拒绝 "README.CD-manufacture"。

拒绝 "README.html"。

拒绝 "README.mirrors.html"。

拒绝 "extrafiles"。

拒绝 "ls-1R.gz"。

```
--2019-04-23 18:58:40--  ftp://debian.ustc.edu.cn/debian/tools/tools
```

```
                         => "debian.ustc.edu.cn/debian/tools/.listing"
```

```
==> CWD (1) /debian/tools ... 完成。
```

```
==> PASV ... 完成。 ==> LIST ... 完成。
```

```
debian.ustc.edu.cn/      [ <=> ]      327  ---KB/s  用时 0s

2019-04-23 18:58:40 (2.21 MB/s) - "debian.ustc.edu.cn/debian/tools/.listing" 已保存 [327]

已删除 "debian.ustc.edu.cn/debian/tools/.listing"。
拒绝 "loadlin.exe"。
--2019-04-23 18:58:40--  ftp://debian.ustc.edu.cn/debian/tools/loadlin.txt
                         => "debian.ustc.edu.cn/debian/tools/loadlin.txt"
==> 不需要 CWD。
==> PASV ... 完成。 ==> RETR loadlin.txt ... 完成。
长度: 32663 (32K)

debian.ustc.edu.cn/ 100%[=====] 31.90K  ---KB/s  用时 0.1s

2019-04-23 18:58:40 (238 KB/s) - "debian.ustc.edu.cn/debian/tools/loadlin.txt" 已保存 [32663]

--2019-04-23 18:58:40--  ftp://debian.ustc.edu.cn/debian/tools/win32-loader/tools
                         => "debian.ustc.edu.cn/debian/tools/win32-loader/.listing"
==> CWD (1) /debian/tools/win32-loader ... 完成。
==> PASV ... 完成。 ==> LIST ... 完成。

debian.ustc.edu.cn/      [ <=> ]      451  ---KB/s  用时 0s

2019-04-23 18:58:40 (1.78 MB/s) - "debian.ustc.edu.cn/debian/tools/win32-loader/.listing" 已保存 [451]

已删除 "debian.ustc.edu.cn/debian/tools/win32-loader/.listing"。
--2019-04-23 18:58:40--  ftp://debian.ustc.edu.cn/debian/tools/win32-loader/oldoldstable/tools
                         => "debian.ustc.edu.cn/debian/tools/win32-loader/oldoldstable/.listing"
==> CWD (1) /debian/tools/win32-loader/oldoldstable ... 完成。
==> PASV ... 完成。 ==> LIST ... 完成。

debian.ustc.edu.cn/      [ <=> ]      267  ---KB/s  用时 0s

2019-04-23 18:58:40 (1.55 MB/s) - "debian.ustc.edu.cn/debian/tools/win32-loader/oldoldstable/.listing" 已保存 [267]

已删除 "debian.ustc.edu.cn/debian/tools/win32-loader/oldoldstable/.listing"。
拒绝 "win32-loader.exe"。
--2019-04-23 18:58:40--  ftp://debian.ustc.edu.cn/debian/tools/win32-loader/oldoldstable/win32-loader.txt
                         => "debian.ustc.edu.cn/debian/tools/win32-loader/oldoldstable/win32-loader.txt"
==> 不需要 CWD。
==> PASV ... 完成。 ==> RETR win32-loader.txt ... 完成。
长度: 4454 (4.3K)

debian.ustc.edu.cn/ 100%[=====] 4.35K  ---KB/s  用时 0.1s
```

```
2019-04-23 18:58:40 (30.0 KB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/oldoldstable/win32-loader.txt" 已保存 [4454]

--2019-04-23 18:58:40-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/oldstable/tools
    => "debian.ustc.edu.cn/debian/tools/win32-loader/oldstable/.listing"
==> CWD (1) /debian/tools/win32-loader/oldstable ... 完成。
==> PASV ... 完成。 ==> LIST ... 完成。

debian.ustc.edu.cn/      [ <=> ]      267  ---KB/s 用时 0s

2019-04-23 18:58:40 (1.02 MB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/oldstable/.listing" 已保存 [267]

已删除 "debian.ustc.edu.cn/debian/tools/win32-loader/oldstable/.listing"。
拒绝 "win32-loader.exe"。
--2019-04-23 18:58:40-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/oldstable/win32-loader.txt
    => "debian.ustc.edu.cn/debian/tools/win32-loader/oldstable/win32-
loader.txt"
==> 不需要 CWD。
==> PASV ... 完成。 ==> RETR win32-loader.txt ... 完成。
长度: 4453 (4.3K)

debian.ustc.edu.cn/ 100%[=====] 4.35K ---KB/s 用时 0.1s

2019-04-23 18:58:40 (30.3 KB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/oldstable/win32-loader.txt" 已保存 [4453]

--2019-04-23 18:58:40-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/stable/tools
    => "debian.ustc.edu.cn/debian/tools/win32-loader/stable/.listing"
==> CWD (1) /debian/tools/win32-loader/stable ... 完成。
==> PASV ... 完成。 ==> LIST ... 完成。

debian.ustc.edu.cn/      [ <=> ]      267  ---KB/s 用时 0s

2019-04-23 18:58:40 (978 KB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/stable/.listing" 已保存 [267]

已删除 "debian.ustc.edu.cn/debian/tools/win32-loader/stable/.listing"。
拒绝 "win32-loader.exe"。
--2019-04-23 18:58:40-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/stable/win32-loader.txt
    => "debian.ustc.edu.cn/debian/tools/win32-loader/stable/win32-
loader.txt"
==> 不需要 CWD。
==> PASV ... 完成。 ==> RETR win32-loader.txt ... 完成。
长度: 3942 (3.8K)

debian.ustc.edu.cn/ 100%[=====] 3.85K ---KB/s 用时 0.05s

2019-04-23 18:58:40 (72.5 KB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/stable/win32-loader.txt" 已保存 [3942]
```

```
--2019-04-23 18:58:40-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/testing/tools
      => "debian.ustc.edu.cn/debian/tools/win32-loader/testing/.listing"
==> CWD (1) /debian/tools/win32-loader/testing ... 完成。
==> PASV ... 完成。 ==> LIST ... 完成。
```

```
debian.ustc.edu.cn/ [ <=> ] 267 ---KB/s 用时 0s
```

```
2019-04-23 18:58:41 (1.31 MB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/testing/.listing" 已保存 [267]
```

已删除 "debian.ustc.edu.cn/debian/tools/win32-loader/testing/.listing"。
拒绝 "win32-loader.exe"。

```
--2019-04-23 18:58:41-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/testing/win32-loader.txt
      => "debian.ustc.edu.cn/debian/tools/win32-loader/testing/win32-
loader.txt"
==> 不需要 CWD。
==> PASV ... 完成。 ==> RETR win32-loader.txt ... 完成。
长度: 3935 (3.8K)
```

```
debian.ustc.edu.cn/ 100%[=====] 3.84K 25.2KB/s 用时 0.2s
```

```
2019-04-23 18:58:41 (25.2 KB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/testing/win32-loader.txt" 已保存 [3935]
```

```
--2019-04-23 18:58:41-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/unstable/tools
      => "debian.ustc.edu.cn/debian/tools/win32-loader/unstable/.listing"
==> CWD (1) /debian/tools/win32-loader/unstable ... 完成。
==> PASV ... 完成。 ==> LIST ... 完成。
```

```
debian.ustc.edu.cn/ [ <=> ] 267 ---KB/s 用时 0s
```

```
2019-04-23 18:58:41 (1.16 MB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/unstable/.listing" 已保存 [267]
```

已删除 "debian.ustc.edu.cn/debian/tools/win32-loader/unstable/.listing"。
拒绝 "win32-loader.exe"。

```
--2019-04-23 18:58:41-- ftp://debian.ustc.edu.cn/debian/tools/win32-
loader/unstable/win32-loader.txt
      => "debian.ustc.edu.cn/debian/tools/win32-loader/unstable/win32-
loader.txt"
==> 不需要 CWD。
==> PASV ... 完成。 ==> RETR win32-loader.txt ... 完成。
长度: 3932 (3.8K)
```

```
debian.ustc.edu.cn/ 100%[=====] 3.84K ---KB/s 用时 0.02s
```

```
2019-04-23 18:58:41 (203 KB/s) - "debian.ustc.edu.cn/debian/tools/win32-
loader/unstable/win32-loader.txt" 已保存 [3932]
```

下载完毕 --2019-04-23 18:58:41--

总用时: 1.0s
下载了: 6 个文件, 0.6s (80.5 KB/s) 中的 52K

tcpdump

```
tcpdump: listening on enp2s0, link-type EN10MB (Ethernet), capture size 262144 bytes
15:37:51.942971 IP (tos 0x10, ttl 64, id 57221, offset 0, flags [DF], proto TCP (6), length 58)
    192.168.123.117.48038 > 202.38.64.10.21: Flags [P.], cksum 0xb6dc (correct),
    seq 1416575186:1416575192, ack 1091109211, win 237, options [nop,nop,TS val 2303294215 ecr 1900791543], length 6: FTP, length: 6
        PASV
        0x0000: 4510 003a df85 4000 4006 14da c0a8 7b75 E...:@.@@....{u
        0x0010: ca26 400a bba6 0015 546f 38d2 4109 015b .&@....To8.A..[
        0x0020: 8018 00ed b6dc 0000 0101 080a 8949 7b07 .....I{.
        0x0030: 714b c6f7 5041 5356 0d0a                 qK..PASV..
15:37:51.959955 IP (tos 0x0, ttl 61, id 18243, offset 0, flags [DF], proto TCP (6), length 101)
    202.38.64.10.21 > 192.168.123.117.48038: Flags [P.], cksum 0xaf11 (correct),
    seq 1:50, ack 6, win 181, options [nop,nop,TS val 1900805655 ecr 2303294215],
    length 49: FTP, length: 49
        227 Entering Passive Mode (202,38,64,10,71,173)
        0x0000: 4500 0065 4743 4000 3d06 b001 ca26 400a E..eGC@.=....&@.
        0x0010: c0a8 7b75 0015 bba6 4109 015b 546f 38d8 ..{u....A..[To8.
        0x0020: 8018 00b5 af11 0000 0101 080a 714b fe17 .....qK..
        0x0030: 8949 7b07 3232 3720 456e 7465 7269 6e67 .I{.227.Entering
        0x0040: 2050 6173 7369 7665 204d 6f64 6520 2832 .Passive.Mode.(2
        0x0050: 3032 2c33 382c 3634 2c31 302c 3731 2c31 02,38,64,10,71,1
        0x0060: 3733 290d 0a                           73).. .
15:37:51.959998 IP (tos 0x10, ttl 64, id 57222, offset 0, flags [DF], proto TCP (6), length 52)
    192.168.123.117.48038 > 202.38.64.10.21: Flags [.], cksum 0x3024 (correct),
    seq 6, ack 50, win 237, options [nop,nop,TS val 2303294232 ecr 1900805655],
    length 0
        0x0000: 4510 0034 df86 4000 4006 14df c0a8 7b75 E..4..@.@@....{u
        0x0010: ca26 400a bba6 0015 546f 38d8 4109 018c .&@....To8.A...
        0x0020: 8010 00ed 3024 0000 0101 080a 8949 7b18 ....0$.....I{.
        0x0030: 714b fe17                               qK..
15:37:51.960134 IP (tos 0x0, ttl 64, id 10381, offset 0, flags [DF], proto TCP (6), length 60)
    192.168.123.117.59606 > 202.38.64.10.18349: Flags [S], cksum 0x1c7a
    (correct), seq 1820381632, win 29200, options [mss 1460,sackOK,TS val 2303294232
    ecr 0,nop,wscale 7], length 0
        0x0000: 4500 003c 288d 4000 4006 cbe0 c0a8 7b75 E..<(.@.@@....{u
        0x0010: ca26 400a e8d6 47ad 6c80 d1c0 0000 0000 .&@...G.l.....
        0x0020: a002 7210 1c7a 0000 0204 05b4 0402 080a ...r..z.....
        0x0030: 8949 7b18 0000 0000 0103 0307           .I{.....
15:37:51.974086 IP (tos 0x0, ttl 61, id 0, offset 0, flags [DF], proto TCP (6),
```

```

length 60)
202.38.64.10.18349 > 192.168.123.117.59606: Flags [S.], cksum 0x02db
(correct), seq 1112982325, ack 1820381633, win 5792, options [mss 1460,sackOK,TS
val 1900805672 ecr 2303294232,nop,wscale 5], length 0
0x0000: 4500 003c 0000 4000 3d06 f76d ca26 400a E..<..@.=..m.&@.
0x0010: c0a8 7b75 47ad e8d6 4256 c335 6c80 d1c1 ..{uG...BV.51...
0x0020: a012 16a0 02db 0000 0204 05b4 0402 080a .....
0x0030: 714b fe28 8949 7b18 0103 0305 qK.(.I{.....
15:37:51.974135 IP (tos 0x0, ttl 64, id 10382, offset 0, flags [DF], proto TCP
(6), length 52)
192.168.123.117.59606 > 202.38.64.10.18349: Flags [.], cksum 0x4752
(correct), seq 1, ack 1, win 229, options [nop,nop,TS val 2303294246 ecr
1900805672], length 0
0x0000: 4500 0034 288e 4000 4006 cbe7 c0a8 7b75 E..4(.@.@.....{u
0x0010: ca26 400a e8d6 47ad 6c80 d1c1 4256 c336 .&@...G.l...BV.6
0x0020: 8010 00e5 4752 0000 0101 080a 8949 7b26 ....GR.....I{&
0x0030: 714b fe28 qK.(
15:37:51.974212 IP (tos 0x10, ttl 64, id 57223, offset 0, flags [DF], proto TCP
(6), length 58)
192.168.123.117.48038 > 202.38.64.10.21: Flags [P.], cksum 0x8360 (correct),
seq 6:12, ack 50, win 237, options [nop,nop,TS val 2303294246 ecr 1900805655],
length 6: FTP, length: 6
LIST
0x0000: 4510 003a df87 4000 4006 14d8 c0a8 7b75 E...:@.@.....{u
0x0010: ca26 400a bba6 0015 546f 38d8 4109 018c .&@.....To8.A...
0x0020: 8018 00ed 8360 0000 0101 080a 8949 7b26 ....`.....I{&
0x0030: 714b fe17 4c49 5354 0d0a qK..LIST..
15:37:51.982597 IP (tos 0x0, ttl 61, id 18245, offset 0, flags [DF], proto TCP
(6), length 91)
202.38.64.10.21 > 192.168.123.117.48038: Flags [P.], cksum 0x1adc (correct),
seq 50:89, ack 12, win 181, options [nop,nop,TS val 1900805686 ecr 2303294246],
length 39: FTP, length: 39
150 Here comes the directory listing.
0x0000: 4500 005b 4745 4000 3d06 b009 ca26 400a E..[GE@.=....&@.
0x0010: c0a8 7b75 0015 bba6 4109 018c 546f 38de ..{u....A...To8.
0x0020: 8018 00b5 1adc 0000 0101 080a 714b fe36 .....
0x0030: 8949 7b26 3135 3020 4865 7265 2063 6f6d .I{&150.Here.com
0x0040: 6573 2074 6865 2064 6972 6563 746f 7279 es.the.directory
0x0050: 206c 6973 7469 6e67 2e0d 0a .listing...
15:37:51.982632 IP (tos 0x8, ttl 61, id 15616, offset 0, flags [DF], proto TCP
(6), length 52)
202.38.64.10.18349 > 192.168.123.117.59606: Flags [F.], cksum 0x4773
(correct), seq 1, ack 1, win 181, options [nop,nop,TS val 1900805686 ecr
2303294246], length 0
0x0000: 4508 0034 3d00 4000 3d06 ba6d ca26 400a E..4=@.=..m.&@.
0x0010: c0a8 7b75 47ad e8d6 4256 c336 6c80 d1c1 ..{uG...BV.61...
0x0020: 8011 00b5 4773 0000 0101 080a 714b fe36 ....Gs.....qK.6
0x0030: 8949 7b26 .I{&
15:37:51.982781 IP (tos 0x8, ttl 64, id 10383, offset 0, flags [DF], proto TCP
(6), length 52)
192.168.123.117.59606 > 202.38.64.10.18349: Flags [F.], cksum 0x4739
(correct), seq 1, ack 2, win 229, options [nop,nop,TS val 2303294255 ecr
1900805686], length 0
0x0000: 4508 0034 288f 4000 4006 cbde c0a8 7b75 E..4(.@.@.....{u

```

```

0x0010: ca26 400a e8d6 47ad 6c80 d1c1 4256 c337 .&@...G.l...BV.7
0x0020: 8011 00e5 4739 0000 0101 080a 8949 7b2f ....G9.....I{/ 
0x0030: 714b fe36 qK.6
15:37:51.990066 IP (tos 0x8, ttl 61, id 15618, offset 0, flags [DF], proto TCP
(6), length 52)
    202.38.64.10.18349 > 192.168.123.117.59606: Flags [.], cksum 0x4761
(correct), seq 2, ack 2, win 181, options [nop,nop,TS val 1900805694 ecr
2303294255], length 0
        0x0000: 4508 0034 3d02 4000 3d06 ba6b ca26 400a E..4=@.=..k.&@.
        0x0010: c0a8 7b75 47ad e8d6 4256 c337 6c80 d1c2 ..{uG...BV.71...
        0x0020: 8010 00b5 4761 0000 0101 080a 714b fe3e ....Ga.....qK.>
        0x0030: 8949 7b2f .I{/ 
15:37:51.990095 IP (tos 0x0, ttl 61, id 18247, offset 0, flags [DF], proto TCP
(6), length 76)
    202.38.64.10.21 > 192.168.123.117.48038: Flags [P.], cksum 0x6a60 (correct),
seq 89:113, ack 12, win 181, options [nop,nop,TS val 1900805694 ecr 2303294246],
length 24: FTP, length: 24
        226 Directory send OK.
        0x0000: 4500 004c 4747 4000 3d06 b016 ca26 400a E..LGG@.=....&@.
        0x0010: c0a8 7b75 0015 bba6 4109 01b3 546f 38de ..{u....A...To8.
        0x0020: 8018 00b5 6a60 0000 0101 080a 714b fe3e ....j`.....qK.>
        0x0030: 8949 7b26 3232 3620 4469 7265 6374 6f72 .I{&226.Director
        0x0040: 7920 7365 6e64 204f 4b2e 0d0a y.send.OK...
15:37:51.990161 IP (tos 0x10, ttl 64, id 57224, offset 0, flags [DF], proto TCP
(6), length 52)
    192.168.123.117.48038 > 202.38.64.10.21: Flags [.], cksum 0x2fa2 (correct),
seq 12, ack 113, win 237, options [nop,nop,TS val 2303294262 ecr 1900805686],
length 0
        0x0000: 4510 0034 df88 4000 4006 14dd c0a8 7b75 E..4..@.@....{u
        0x0010: ca26 400a bba6 0015 546f 38de 4109 01cb .&@....To8.A...
        0x0020: 8010 00ed 2fa2 0000 0101 080a 8949 7b36 ..../.....I{6
        0x0030: 714b fe36 qK.6

```

nslookup

```

> flame.nsrl.ustc.edu.cn
Server:      127.0.0.53
Address:     127.0.0.53#53

Non-authoritative answer:
flame.nsrl.ustc.edu.cn canonical name = revproxy.ustc.edu.cn.
Name:   revproxy.ustc.edu.cn
Address: 202.38.64.246
Name:   revproxy.ustc.edu.cn
Address: 2001:da8:d800:642::248
> 202.38.75.11
11.75.38.202.in-addr.arpa      name = infonet.ustc.edu.cn.

Authoritative answers can be found from:

```

```
> lserver 202.38.75.11
Default server: 202.38.75.11
Address: 202.38.75.11#53
> flame.nsrl.ustc.edu.cn
;; connection timed out; no servers could be reached
> 202.38.75.11
;; connection timed out; no servers could be reached
> set all
Default server: 202.38.75.11
Address: 202.38.75.11#53
```

Set options:

```
novc          nodebug      nod2
search        recurse
timeout = 0   retry = 3    port = 53      ndots = 1
querytype = A class = IN
srchlist = lan
> lserver 202.38.64.1
Default server: 202.38.64.1
Address: 202.38.64.1#53
> set type=MX
> mail.ustc.edu.cn
Server:      202.38.64.1
Address:     202.38.64.1#53

mail.ustc.edu.cn      mail exchanger = 10 smtp.ustc.edu.cn.
mail.ustc.edu.cn      mail exchanger = 10 smtp2.ustc.edu.cn.
mail.ustc.edu.cn      mail exchanger = 5 smtp1.ustc.edu.cn.
> set type=ns
> ustc.edu.cn
Server:      202.38.64.1
Address:     202.38.64.1#53
```

```
ustc.edu.cn      nameserver = ns.ustc.edu.cn.
ustc.edu.cn      nameserver = mx.ustc.edu.cn.
> set type=AAAA
> ipv6.google.com
Server:      202.38.64.1
Address:     202.38.64.1#53
```

```
*** Can't find ipv6.google.com: No answer
> bbs6.ustc.edu.cn
Server:      202.38.64.1
Address:     202.38.64.1#53
```

```
Name:  bbs6.ustc.edu.cn
Address: 2001:da8:d800::3
> lserver 8.8.8.8
Default server: 8.8.8.8
Address: 8.8.8.8#53
> ipv6.google.com
Server:      8.8.8.8
Address:     8.8.8.8#53
```

Non-authoritative answer:

```
Name: ipv6.google.com
Address: 203.98.7.65
> en.wikipedia.org
Server: 8.8.8.8
Address: 8.8.8.8#53
```

Non-authoritative answer:

```
en.wikipedia.org canonical name = wikipedia.org.
Name: wikipedia.org
Address: 2001:df2:e500:ed1a::1
> set type=A
> en.wikipedia.org
Server: 8.8.8.8
Address: 8.8.8.8#53
```

Non-authoritative answer:

```
en.wikipedia.org canonical name = wikipedia.org.
Name: wikipedia.org
Address: 103.102.166.224
```

FTP主动模式

```
tcpdump: listening on enp2s0, link-type EN10MB (Ethernet), capture size 262144 bytes
15:54:30.396253 IP (tos 0x10, ttl 64, id 1299, offset 0, flags [DF], proto TCP (6), length 81)
    192.168.123.117.35000 > 202.38.64.10.21: Flags [P.], cksum 0x8d9b (correct),
    seq 113570735:113570764, ack 2005571410, win 237, options [nop,nop,TS val 1313545730 ecr 2247439226], length 29: FTP, length: 29
        PORT 192,168,123,117,182,85
        0x0000: 4510 0051 0513 4000 4006 ef35 c0a8 7b75 E..Q..@..@..5..{u
        0x0010: ca26 400a 88b8 0015 06c4 f3af 778a 9752 .&@.....w..R
        0x0020: 8018 00ed 8d9b 0000 0101 080a 4e4b 1e02 .....NK..
        0x0030: 85f5 337a 504f 5254 2031 3932 2c31 3638 ..3zPORT.192,168
        0x0040: 2c31 3233 2c31 3137 2c31 3832 2c38 350d ,123,117,182,85.
        0x0050: 0a .
15:54:30.396913 IP (tos 0x0, ttl 61, id 45669, offset 0, flags [DF], proto TCP (6), length 103)
    202.38.64.10.21 > 192.168.123.117.35000: Flags [P.], cksum 0xb876 (correct),
    seq 1:52, ack 29, win 181, options [nop,nop,TS val 2247444324 ecr 1313545730],
    length 51: FTP, length: 51
        200 PORT command successful. Consider using PASV.
        0x0000: 4500 0067 b265 4000 3d06 44dd ca26 400a E..g.e@.=.D..&@.
        0x0010: c0a8 7b75 0015 88b8 778a 9752 06c4 f3cc ..{u....w..R....
        0x0020: 8018 00b5 b876 0000 0101 080a 85f5 4764 .....v.....Gd
        0x0030: 4e4b 1e02 3230 3020 504f 5254 2063 6f6d NK..200.PORT.com
        0x0040: 6d61 6e64 2073 7563 6365 7373 6675 6c2e mand.successful.
        0x0050: 2043 6f6e 7369 6465 7220 7573 696e 6720 .Consider.using.
```

```

0x0060: 5041 5356 2e0d 0a          PASV...
15:54:30.396925 IP (tos 0x10, ttl 64, id 1300, offset 0, flags [DF], proto TCP
(6), length 52)
    192.168.123.117.35000 > 202.38.64.10.21: Flags [.], cksum 0x636c (correct),
    seq 29, ack 52, win 237, options [nop,nop,TS val 1313545730 ecr 2247444324],
    length 0
        0x0000: 4510 0034 0514 4000 4006 ef51 c0a8 7b75 E..4..@.@@.Q..{u
        0x0010: ca26 400a 88b8 0015 06c4 f3cc 778a 9785 .&@.....w...
        0x0020: 8010 00ed 636c 0000 0101 080a 4e4b 1e02 ....cl.....NK..
        0x0030: 85f5 4764 ..Gd
15:54:30.396963 IP (tos 0x10, ttl 64, id 1301, offset 0, flags [DF], proto TCP
(6), length 58)
    192.168.123.117.35000 > 202.38.64.10.21: Flags [P.], cksum 0xb6b6 (correct),
    seq 29:35, ack 52, win 237, options [nop,nop,TS val 1313545730 ecr 2247444324],
    length 6: FTP, length: 6
        LIST
        0x0000: 4510 003a 0515 4000 4006 ef4a c0a8 7b75 E...@.@@.J..{u
        0x0010: ca26 400a 88b8 0015 06c4 f3cc 778a 9785 .&@.....w...
        0x0020: 8018 00ed b6b6 0000 0101 080a 4e4b 1e02 .....NK..
        0x0030: 85f5 4764 4c49 5354 0d0a ..GdLIST..
15:54:30.397575 IP (tos 0x0, ttl 61, id 22570, offset 0, flags [DF], proto TCP
(6), length 60)
    202.38.64.10.20 > 192.168.123.117.46677: Flags [S], cksum 0xcf19 (correct),
    seq 2025201487, ack 5840, options [mss 1460,sackOK,TS val 2247444325 ecr
    0,nop,wscale 5], length 0
        0x0000: 4500 003c 582a 4000 3d06 9f43 ca26 400a E..<X*@.=..C.&@.
        0x0010: c0a8 7b75 0014 b655 78b6 1f4f 0000 0000 ..{u...Ux..0....
        0x0020: a002 16d0 cf19 0000 0204 05b4 0402 080a .....
        0x0030: 85f5 4765 0000 0000 0103 0305 ..Ge.....
15:54:30.397588 IP (tos 0x0, ttl 64, id 0, offset 0, flags [DF], proto TCP (6),
length 60)
    192.168.123.117.46677 > 202.38.64.10.20: Flags [S.], cksum 0x3a3b (correct),
    seq 1623027055, ack 2025201488, win 28960, options [mss 1460,sackOK,TS val
    1313545731 ecr 2247444325,nop,wscale 7], length 0
        0x0000: 4500 003c 0000 4000 4006 f46d c0a8 7b75 E..<..@.@@.m..{u
        0x0010: ca26 400a b655 0014 60bd 6d6f 78b6 1f50 .&@..U..`_mox..P
        0x0020: a012 7120 3a3b 0000 0204 05b4 0402 080a ..q.:;.....
        0x0030: 4e4b 1e03 85f5 4765 0103 0307 NK....Ge....
15:54:30.398025 IP (tos 0x0, ttl 61, id 22572, offset 0, flags [DF], proto TCP
(6), length 52)
    202.38.64.10.20 > 192.168.123.117.46677: Flags [.], cksum 0xd970 (correct),
    seq 1, ack 1, win 183, options [nop,nop,TS val 2247444325 ecr 1313545731], length
    0
        0x0000: 4500 0034 582c 4000 3d06 9f49 ca26 400a E..4X,@.=..I.&@.
        0x0010: c0a8 7b75 0014 b655 78b6 1f50 60bd 6d70 ..{u...Ux..P`_mp
        0x0020: 8010 00b7 d970 0000 0101 080a 85f5 4765 .....p.....Ge
        0x0030: 4e4b 1e03 NK..
15:54:30.398045 IP (tos 0x8, ttl 61, id 22574, offset 0, flags [DF], proto TCP
(6), length 52)
    202.38.64.10.20 > 192.168.123.117.46677: Flags [F.], cksum 0xd96f (correct),
    seq 1, ack 1, win 183, options [nop,nop,TS val 2247444325 ecr 1313545731], length
    0
        0x0000: 4508 0034 582e 4000 3d06 9f3f ca26 400a E..4X.@.=..?.&@.
        0x0010: c0a8 7b75 0014 b655 78b6 1f50 60bd 6d70 ..{u...Ux..P`_mp

```

```
0x0020: 8011 00b7 d96f 0000 0101 080a 85f5 4765 .....o.....Ge
0x0030: 4e4b 1e03 NK..
15:54:30.398063 IP (tos 0x0, ttl 61, id 45671, offset 0, flags [DF], proto TCP
(6), length 91)
    202.38.64.10.21 > 192.168.123.117.35000: Flags [P.], cksum 0x4e50 (correct),
seq 52:91, ack 35, win 181, options [nop,nop,TS val 2247444325 ecr 1313545730],
length 39: FTP, length: 39
        150 Here comes the directory listing.
        0x0000: 4500 005b b267 4000 3d06 44e7 ca26 400a E..[.g@.=.D..&@.
        0x0010: c0a8 7b75 0015 88b8 778a 9785 06c4 f3d2 ..{u....w.....
        0x0020: 8018 00b5 4e50 0000 0101 080a 85f5 4765 ....NP.....Ge
        0x0030: 4e4b 1e02 3135 3020 4865 7265 2063 6f6d NK..150.Here.com
        0x0040: 6573 2074 6865 2064 6972 6563 746f 7279 es.the.directory
        0x0050: 206c 6973 7469 6e67 2e0d 0a .listing...
15:54:30.398132 IP (tos 0x8, ttl 64, id 37858, offset 0, flags [DF], proto TCP
(6), length 52)
    192.168.123.117.46677 > 202.38.64.10.20: Flags [F.], cksum 0xd941 (correct),
seq 1, ack 2, win 227, options [nop,nop,TS val 1313545732 ecr 2247444325], length
0
        0x0000: 4508 0034 93e2 4000 4006 608b c0a8 7b75 E..4..@.@"`...{u
        0x0010: ca26 400a b655 0014 60bd 6d70 78b6 1f51 .&@..U..` .mpx..Q
        0x0020: 8011 00e3 d941 0000 0101 080a 4e4b 1e04 ....A.....NK..
        0x0030: 85f5 4765 ..Ge
15:54:30.398590 IP (tos 0x8, ttl 61, id 22576, offset 0, flags [DF], proto TCP
(6), length 52)
    202.38.64.10.20 > 192.168.123.117.46677: Flags [.], cksum 0xd96c (correct),
seq 2, ack 2, win 183, options [nop,nop,TS val 2247444326 ecr 1313545732], length
0
        0x0000: 4508 0034 5830 4000 3d06 9f3d ca26 400a E..4X0@.=...=&@.
        0x0010: c0a8 7b75 0014 b655 78b6 1f51 60bd 6d71 ..{u...Ux..Q` .mq
        0x0020: 8010 00b7 d96c 0000 0101 080a 85f5 4766 ....l.....Gf
        0x0030: 4e4b 1e04 NK..
15:54:30.398698 IP (tos 0x0, ttl 61, id 45673, offset 0, flags [DF], proto TCP
(6), length 76)
    202.38.64.10.21 > 192.168.123.117.35000: Flags [P.], cksum 0x9ddb (correct),
seq 91:115, ack 35, win 181, options [nop,nop,TS val 2247444326 ecr 1313545730],
length 24: FTP, length: 24
        226 Directory send OK.
        0x0000: 4500 004c b269 4000 3d06 44f4 ca26 400a E..L.i@.=.D..&@.
        0x0010: c0a8 7b75 0015 88b8 778a 97ac 06c4 f3d2 ..{u....w.....
        0x0020: 8018 00b5 9ddb 0000 0101 080a 85f5 4766 .....Gf
        0x0030: 4e4b 1e02 3232 3620 4469 7265 6374 6f72 NK..226.Director
        0x0040: 7920 7365 6e64 204f 4b2e 0d0a y.send.OK...
15:54:30.398746 IP (tos 0x10, ttl 64, id 1302, offset 0, flags [DF], proto TCP
(6), length 52)
    192.168.123.117.35000 > 202.38.64.10.21: Flags [.], cksum 0x6324 (correct),
seq 35, ack 115, win 237, options [nop,nop,TS val 1313545732 ecr 2247444325],
length 0
        0x0000: 4510 0034 0516 4000 4006 ef4f c0a8 7b75 E..4..@.0..{u
        0x0010: ca26 400a 88b8 0015 06c4 f3d2 778a 97c4 .&@.....w...
        0x0020: 8010 00ed 6324 0000 0101 080a 4e4b 1e04 ....c$.....NK..
        0x0030: 85f5 4765 ..Ge
```

FTP

```
连接到 home.ustc.edu.cn。
220=====
220-
220-      Welcome to USTC Student FTP/www Server
220-      欢迎来到中国科大学生FTP/主页服务器
220-
220-注意：
220-1. Mailbox目录下是以前的邮件，如果不需要请删除。
220-
220-2. 上传个人主页请创建目录 public_html，主页的第一个文件是index.html
220-
220-3. 用户的帐号和密码取自邮件服务器，因此修改密码请在邮件服务器上进行。
220-    修改密码后大约1个小时，本系统会进行同步。
220-
220-
220
530 Please login with USER and PASS.
用户(home.ustc.edu.cn:(none)): chjz
331 Please specify the password.
密码:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
200 PORT command successful. Consider using PASV.
150 Here comes the directory listing.
226 Directory send OK.
ftp> passive
Passive mode on.
ftp> ls
227 Entering Passive Mode (202,38,64,10,189,114)
150 Here comes the directory listing.
226 Directory send OK.
```