Joseph Kramer
CS 375 Into To Computer Networks
06-27-15

Lab 1

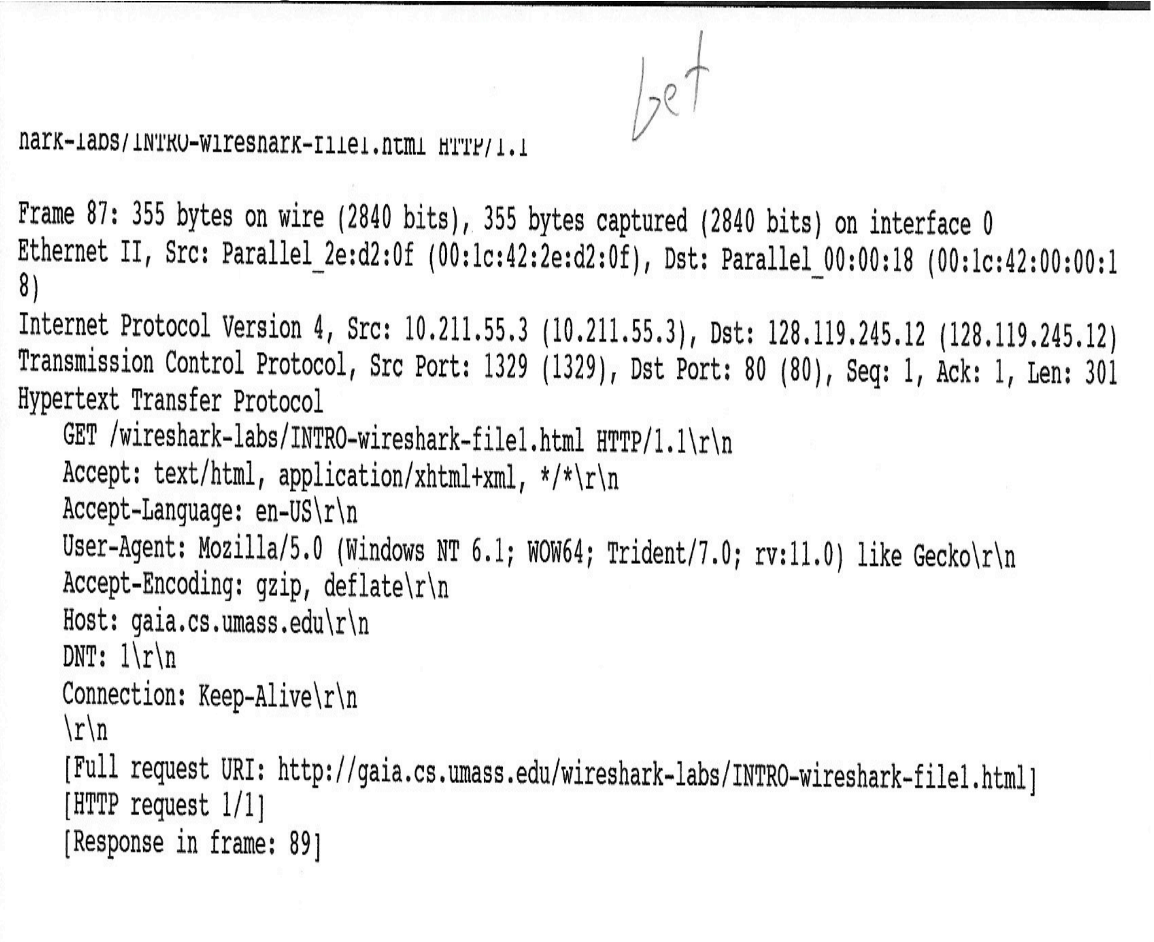
#1.
TCP, HTTP, QUIC, SSDP, DNS

#2.
Start Time: 17:37:22.429433000
End Time: 17:37:22.539245000
Difference = 00:00:00.109812000

#3
gaia.cs.umass.edu IP = 128.119.245.12
Joseph Kramer IP = 10.211.55.3

#4 (I had to print and then scan the printed document. Screen shots also included)

Scanned Get Message

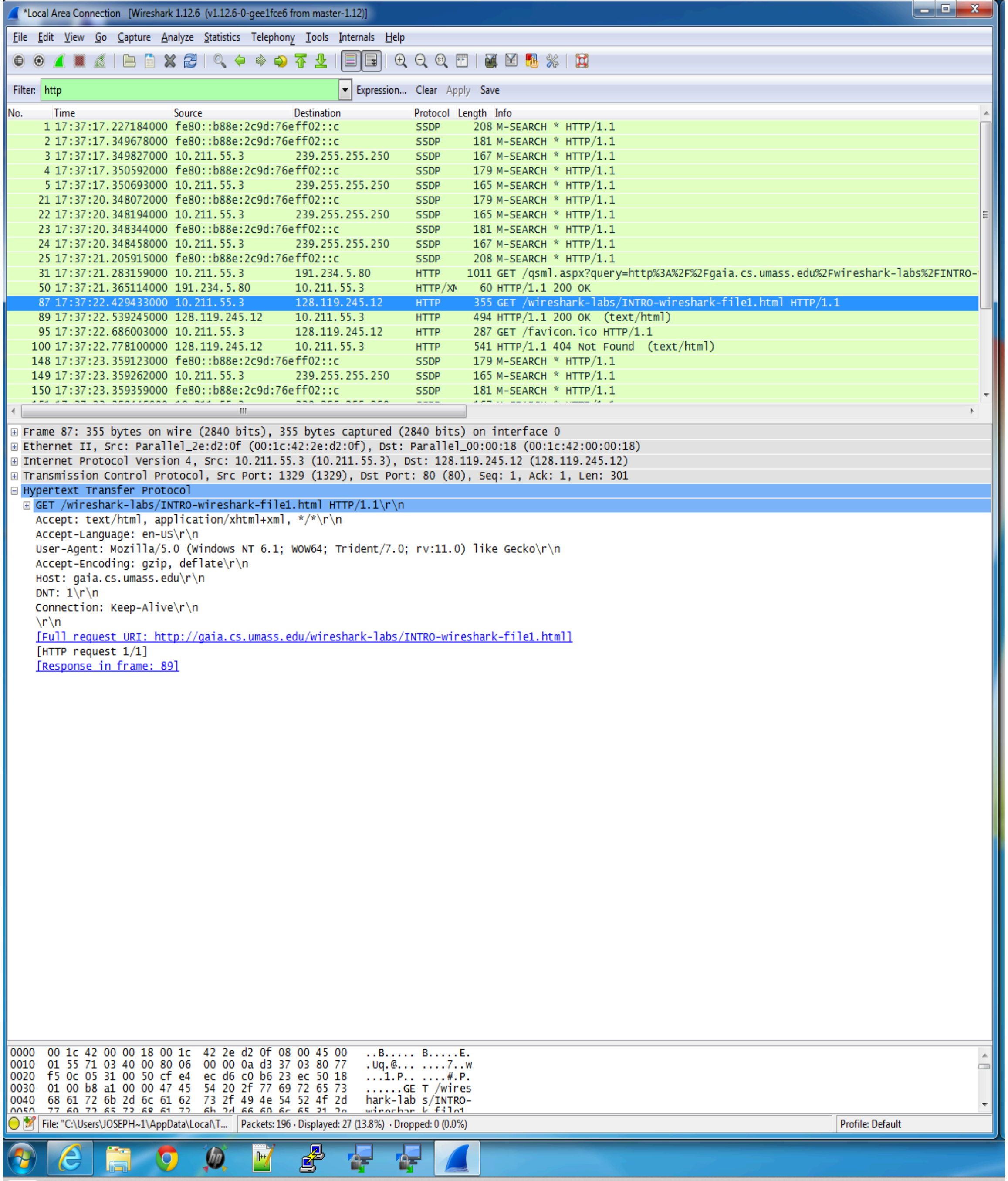


Get

```
nark-labs/INTRO-wireshark-file1.html HTTP/1.1

Frame 87: 355 bytes on wire (2840 bits), 355 bytes captured (2840 bits) on interface 0
Ethernet II, Src: Parallel_2e:d2:0f (00:1c:42:2e:d2:0f), Dst: Parallel_00:00:18 (00:1c:42:00:00:1
8)
Internet Protocol Version 4, Src: 10.211.55.3 (10.211.55.3), Dst: 128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 1329 (1329), Dst Port: 80 (80), Seq: 1, Ack: 1, Len: 301
Hypertext Transfer Protocol
    GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
    Accept: text/html, application/xhtml+xml, */*\r\n
    Accept-Language: en-US\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko\r\n
    Accept-Encoding: gzip, deflate\r\n
    Host: gaia.cs.umass.edu\r\n
    DNT: 1\r\n
    Connection: Keep-Alive\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
    [HTTP request 1/1]
    [Response in frame: 89]
```

Screen Shot Get Message



*Local Area Connection [Wireshark 1.12.6 (v1.12.6-0-gee1fce6 from master-1.12)]
File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help
Expression... Clear Apply Save

Filter: http

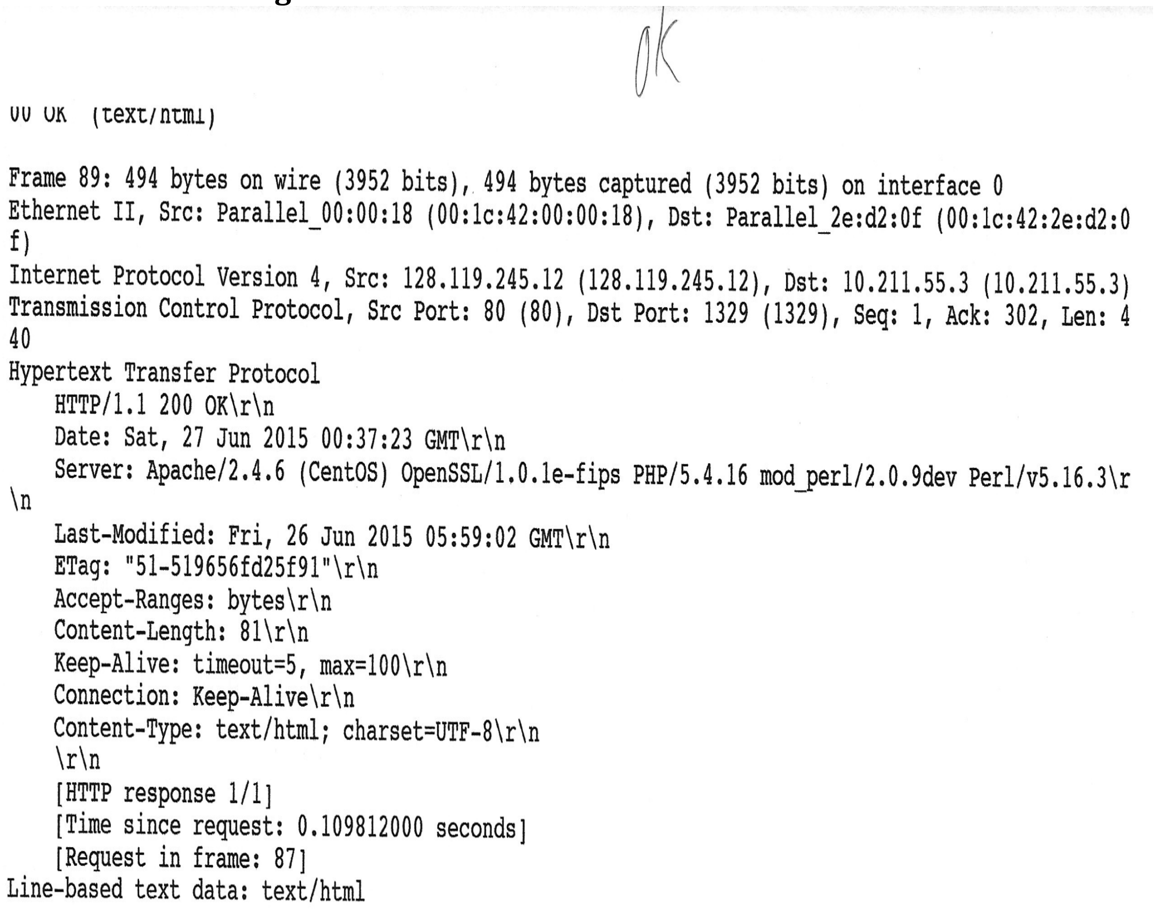
```
No.  Time                Source                      Destination       Protocol  Length  Info
  1 17:37:17.227184000 fe80::b88e:2c9d:76eff02::c                    SSDP       208 M-SEARCH * HTTP/1.1
  2 17:37:17.349678000 fe80::b88e:2c9d:76eff02::c                    SSDP       181 M-SEARCH * HTTP/1.1
  3 17:37:17.349827000 10.211.55.3           239.255.255.250         SSDP       167 M-SEARCH * HTTP/1.1
  4 17:37:17.350592000 fe80::b88e:2c9d:76eff02::c                    SSDP       179 M-SEARCH * HTTP/1.1
  5 17:37:17.350693000 10.211.55.3           239.255.255.250         SSDP       165 M-SEARCH * HTTP/1.1
 21 17:37:20.348072000 fe80::b88e:2c9d:76eff02::c                    SSDP       179 M-SEARCH * HTTP/1.1
 22 17:37:20.348194000 10.211.55.3           239.255.255.250         SSDP       165 M-SEARCH * HTTP/1.1
 23 17:37:20.348344000 fe80::b88e:2c9d:76eff02::c                    SSDP       181 M-SEARCH * HTTP/1.1
 24 17:37:20.348458000 10.211.55.3           239.255.255.250         SSDP       167 M-SEARCH * HTTP/1.1
 25 17:37:21.205915000 fe80::b88e:2c9d:76eff02::c                    SSDP       208 M-SEARCH * HTTP/1.1
 31 17:37:21.283159000 10.211.55.3           191.234.5.80            HTTP      1011 GET /qsml.aspx?query=http%3A%2F%2Fgaia.cs.umass.edu%2Fwireshark-labs%2FINTRO-
 50 17:37:21.365114000 191.234.5.80          10.211.55.3             HTTP/XM     60 HTTP/1.1 200 OK
 87 17:37:22.429433000 10.211.55.3           128.119.245.12          HTTP       355 GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
 89 17:37:22.539245000 128.119.245.12        10.211.55.3             HTTP       494 HTTP/1.1 200 OK  (text/html)
 95 17:37:22.686003000 10.211.55.3           128.119.245.12          HTTP       287 GET /favicon.ico HTTP/1.1
100 17:37:22.778100000 128.119.245.12        10.211.55.3             HTTP       541 HTTP/1.1 404 Not Found  (text/html)
148 17:37:23.359123000 fe80::b88e:2c9d:76eff02::c                    SSDP       179 M-SEARCH * HTTP/1.1
149 17:37:23.359262000 10.211.55.3           239.255.255.250         SSDP       165 M-SEARCH * HTTP/1.1
150 17:37:23.359359000 fe80::b88e:2c9d:76eff02::c                    SSDP       181 M-SEARCH * HTTP/1.1
```

```
⊞ Frame 87: 355 bytes on wire (2840 bits), 355 bytes captured (2840 bits) on interface 0
⊞ Ethernet II, Src: Parallel_2e:d2:0f (00:1c:42:2e:d2:0f), Dst: Parallel_00:00:18 (00:1c:42:00:00:18)
⊞ Internet Protocol Version 4, Src: 10.211.55.3 (10.211.55.3), Dst: 128.119.245.12 (128.119.245.12)
⊞ Transmission Control Protocol, Src Port: 1329 (1329), Dst Port: 80 (80), Seq: 1, Ack: 1, Len: 301
⊟ Hypertext Transfer Protocol
  ⊞ GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
    Accept: text/html, application/xhtml+xml, */*\r\n
    Accept-Language: en-US\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko\r\n
    Accept-Encoding: gzip, deflate\r\n
    Host: gaia.cs.umass.edu\r\n
    DNT: 1\r\n
    Connection: Keep-Alive\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
    [HTTP request 1/1]
    [Response in frame: 89]
```

```
0000  00 1c 42 00 00 18 00 1c  42 2e d2 0f 08 00 45 00   ..B..... B.....E.
0010  01 55 71 03 40 00 80 06  00 00 0a d3 37 03 80 77   .Uq.@... ....7..w
0020  f5 0c 05 31 00 50 cf e4  ec d6 c0 b6 23 ec 50 18   ...1.P.. ....#.P.
0030  01 00 b8 a1 00 00 47 45  54 20 2f 77 69 72 65 73   ......GE T /wires
0040  68 61 72 6b 2d 6c 61 62  73 2f 49 4e 54 52 4f 2d   hark-lab s/INTRO-
```

File: "C:\Users\JOSEPH~1\AppData\Local\T... Packets: 196 · Displayed: 27 (13.8%) · Dropped: 0 (0.0%) Profile: Default

Scanned OK Message

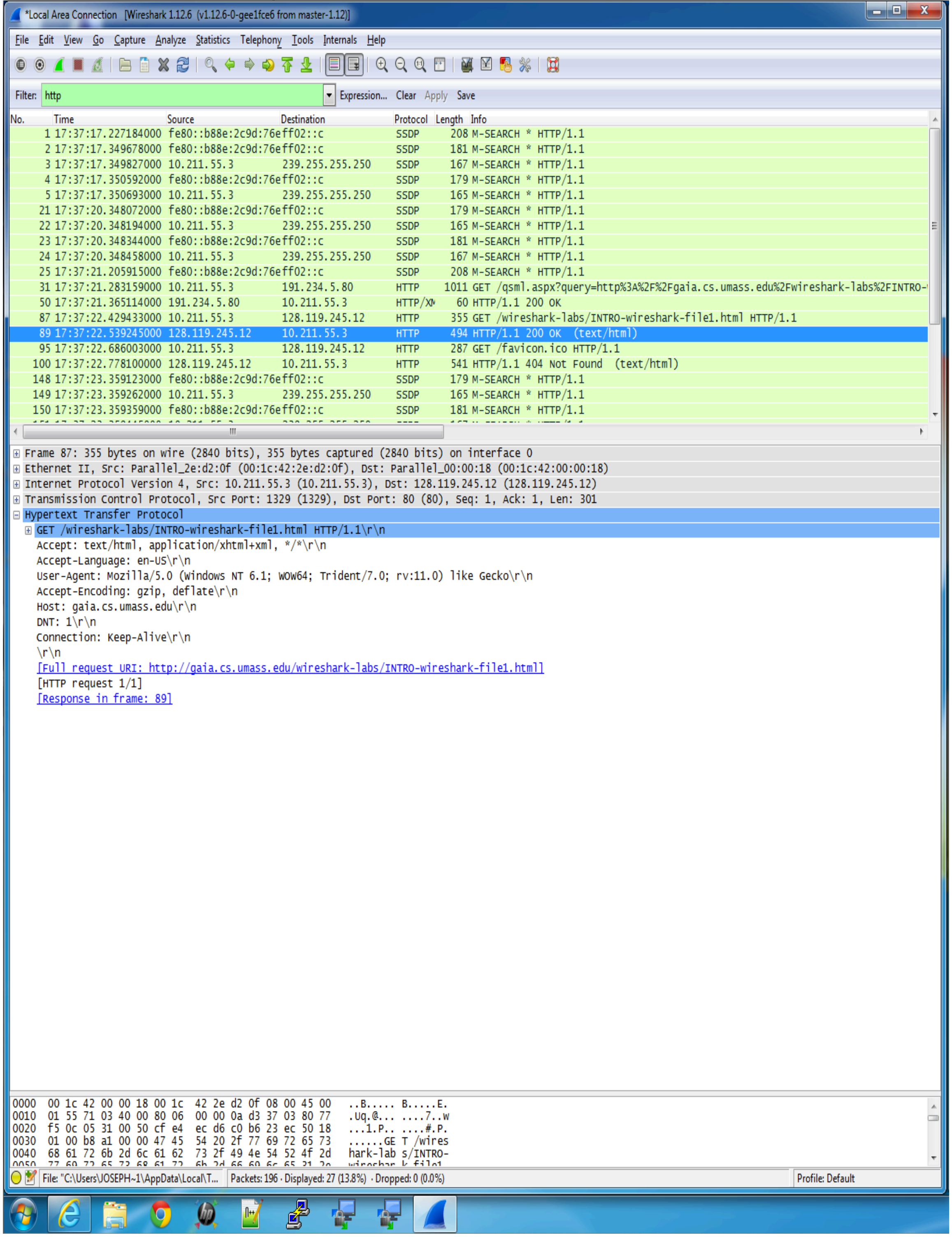


ok

```
00 OK  (text/html)

Frame 89: 494 bytes on wire (3952 bits), 494 bytes captured (3952 bits) on interface 0
Ethernet II, Src: Parallel_00:00:18 (00:1c:42:00:00:18), Dst: Parallel_2e:d2:0f (00:1c:42:2e:d2:0
f)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst: 10.211.55.3 (10.211.55.3)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 1329 (1329), Seq: 1, Ack: 302, Len: 4
40
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Sat, 27 Jun 2015 00:37:23 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.1e-fips PHP/5.4.16 mod_perl/2.0.9dev Perl/v5.16.3\r
\n
    Last-Modified: Fri, 26 Jun 2015 05:59:02 GMT\r\n
    ETag: "51-519656fd25f91"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 81\r\n
    Keep-Alive: timeout=5, max=100\r\n
    Connection: Keep-Alive\r\n
    Content-Type: text/html; charset=UTF-8\r\n
    \r\n
    [HTTP response 1/1]
    [Time since request: 0.109812000 seconds]
    [Request in frame: 87]
Line-based text data: text/html
```

Screen Shot OK Message


*Local Area Connection [Wireshark 1.12.6 (v1.12.6-0-gee1fce6 from master-1.12)]
File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help
Expression... Clear Apply Save

Filter: http

```
No.   Time               Source                    Destination      Protocol Length Info
    1 17:37:17.227184000 fe80::b88e:2c9d:76eff02::c                 SSDP      208 M-SEARCH * HTTP/1.1
    2 17:37:17.349678000 fe80::b88e:2c9d:76eff02::c                 SSDP      181 M-SEARCH * HTTP/1.1
    3 17:37:17.349827000 10.211.55.3               239.255.255.250  SSDP      167 M-SEARCH * HTTP/1.1
    4 17:37:17.350592000 fe80::b88e:2c9d:76eff02::c                 SSDP      179 M-SEARCH * HTTP/1.1
    5 17:37:17.350693000 10.211.55.3               239.255.255.250  SSDP      165 M-SEARCH * HTTP/1.1
   21 17:37:20.348072000 fe80::b88e:2c9d:76eff02::c                 SSDP      179 M-SEARCH * HTTP/1.1
   22 17:37:20.348194000 10.211.55.3               239.255.255.250  SSDP      165 M-SEARCH * HTTP/1.1
   23 17:37:20.348344000 fe80::b88e:2c9d:76eff02::c                 SSDP      181 M-SEARCH * HTTP/1.1
   24 17:37:20.348458000 10.211.55.3               239.255.255.250  SSDP      167 M-SEARCH * HTTP/1.1
   25 17:37:21.205915000 fe80::b88e:2c9d:76eff02::c                 SSDP      208 M-SEARCH * HTTP/1.1
   31 17:37:21.283159000 10.211.55.3               191.234.5.80     HTTP     1011 GET /qsml.aspx?query=http%3A%2F%2Fgaia.cs.umass.edu%2Fwireshark-labs%2FINTRO-
   50 17:37:21.365114000 191.234.5.80              10.211.55.3      HTTP/XM    60 HTTP/1.1 200 OK
   87 17:37:22.429433000 10.211.55.3               128.119.245.12   HTTP      355 GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
   89 17:37:22.539245000 128.119.245.12            10.211.55.3      HTTP      494 HTTP/1.1 200 OK  (text/html)
   95 17:37:22.686003000 10.211.55.3               128.119.245.12   HTTP      287 GET /favicon.ico HTTP/1.1
  100 17:37:22.778100000 128.119.245.12            10.211.55.3      HTTP      541 HTTP/1.1 404 Not Found  (text/html)
  148 17:37:23.359123000 fe80::b88e:2c9d:76eff02::c                 SSDP      179 M-SEARCH * HTTP/1.1
  149 17:37:23.359262000 10.211.55.3               239.255.255.250  SSDP      165 M-SEARCH * HTTP/1.1
  150 17:37:23.359359000 fe80::b88e:2c9d:76eff02::c                 SSDP      181 M-SEARCH * HTTP/1.1
```

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⊞ Frame 87: 355 bytes on wire (2840 bits), 355 bytes captured (2840 bits) on interface 0
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⊞ Internet Protocol Version 4, Src: 10.211.55.3 (10.211.55.3), Dst: 128.119.245.12 (128.119.245.12)
⊞ Transmission Control Protocol, Src Port: 1329 (1329), Dst Port: 80 (80), Seq: 1, Ack: 1, Len: 301
⊟ Hypertext Transfer Protocol
  ⊞ GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
    Accept: text/html, application/xhtml+xml, */*\r\n
    Accept-Language: en-US\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; rv:11.0) like Gecko\r\n
    Accept-Encoding: gzip, deflate\r\n
    Host: gaia.cs.umass.edu\r\n
    DNT: 1\r\n
    Connection: Keep-Alive\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
    [HTTP request 1/1]
    [Response in frame: 89]
```

```
0000  00 1c 42 00 00 18 00 1c  42 2e d2 0f 08 00 45 00   ..B..... B.....E.
0010  01 55 71 03 40 00 80 06  00 00 0a d3 37 03 80 77   .Uq.@... ....7..w
0020  f5 0c 05 31 00 50 cf e4  ec d6 c0 b6 23 ec 50 18   ...1.P.. ....#.P.
0030  01 00 b8 a1 00 00 47 45  54 20 2f 77 69 72 65 73   ......GE T /wires
0040  68 61 72 6b 2d 6c 61 62  73 2f 49 4e 54 52 4f 2d   hark-lab s/INTRO-
```

File: "C:\Users\JOSEPH~1\AppData\Local\T... Packets: 196 · Displayed: 27 (13.8%) · Dropped: 0 (0.0%) Profile: Default