



**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ ННК
«ІПСА» НТУУ «КПІ ІМ. ІГОРЯ СІКОРСЬКОГО»
КАФЕДРА ММСА**

**Лабораторна робота №2
з дисципліни «Комп'ютерні мережі»**

Протокол НТТР

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До питань 1-7, 8-11:

No.	Time	Source	Destination	Protocol	Length	Info
132	72.936895000	192.168.1.245	128.119.245.12	HTTP	401	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1

Frame 132: 401 bytes on wire (3208 bits), 401 bytes captured (3208 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)
Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 52912 (52912), Dst Port: http (80), Seq: 1, Ack: 1, Len: 335

Hypertext Transfer Protocol

```
GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
Accept-Language: en-US,en;q=0.5\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
\r\n
```

[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]

[HTTP request 1/3]

[Response in frame: 134]

[Next request in frame: 136]

No.	Time	Source	Destination	Protocol	Length	Info
134	73.062917000	128.119.245.12	192.168.1.245	HTTP	554	HTTP/1.1 200 OK (text/html)

Frame 134: 554 bytes on wire (4432 bits), 554 bytes captured (4432 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst: 192.168.1.245 (192.168.1.245)
Transmission Control Protocol, Src Port: http (80), Dst Port: 52912 (52912), Seq: 1, Ack: 336, Len: 488
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n

Date: Wed, 13 Apr 2016 20:45:59 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: Wed, 13 Apr 2016 05:59:02 GMT\r\n
ETag: "80-53057797dab45"\r\n
Accept-Ranges: bytes\r\n

Content-Length: 128\r\n
[Content length: 128]

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 1/3]

[Time since request: 0.126022000 seconds]
[Request in frame: 132]
[Next request in frame: 136]
[Next response in frame: 137]

Line-based text data: text/html

<html>\n

Congratulations. You've downloaded the file \n

<http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html>!\n

</html>\n

No.	Time	Source	Destination	Protocol	Length	Info
39	9.328493000	192.168.1.245	128.119.245.12	HTTP	512	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1

Frame 39: 512 bytes on wire (4096 bits), 512 bytes captured (4096 bits) on interface 0
Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)
Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 52918 (52918), Dst Port: http (80), Seq: 1, Ack: 1, Len: 446

Hypertext Transfer Protocol

GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
Accept-Language: en-US,en;q=0.5\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
If-Modified-Since: Wed, 13 Apr 2016 05:59:02 GMT\r\n
If-None-Match: "80-53057797dab45"\r\n
Cache-Control: max-age=0\r\n

\r\n

[Full request URI: <http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html>]

[HTTP request 1/1]

[Response in frame: 41]

No.	Time	Source	Destination	Protocol	Length	Info
41	9.453198000	128.119.245.12	192.168.1.245	HTTP	307	HTTP/1.1 304 Not Modified

Frame 41: 307 bytes on wire (2456 bits), 307 bytes captured (2456 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst: 192.168.1.245 (192.168.1.245)
Transmission Control Protocol, Src Port: http (80), Dst Port: 52918 (52918), Seq: 1, Ack: 447, Len: 241
Hypertext Transfer Protocol
HTTP/1.1 304 Not Modified\r\n

Date: Wed, 13 Apr 2016 20:51:22 GMT\r\nServer: Apache/2.4.6 (CentOS) OpenSSL/1.0.1e-fips PHP/5.4.16 mod_perl/2.0.9dev Perl/v5.16.3\r\nConnection: Keep-Alive\r\nKeep-Alive: timeout=5, max=100\r\nETag: "80-53057797dab45"\r\n\r\n

[HTTP response 1/1]

[Time since request: 0.124705000 seconds]

[Request in frame: 39]

До питань 12-15:

No.	Time	Source	Destination	Protocol	Length	Info
93	4.046235000	192.168.1.245	77.222.57.253	HTTP	359	GET /admin/pictures/33320543s.jpg HTTP/1.1

Frame 93: 359 bytes on wire (2872 bits), 359 bytes captured (2872 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)
Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 77.222.57.253 (77.222.57.253)

Transmission Control Protocol, Src Port: 51168 (51168), Dst Port: http (80), Seq: 1, Ack: 1, Len: 293

Hypertext Transfer Protocol

GET /admin/pictures/33320543s.jpg HTTP/1.1\r\n

[Expert Info (Chat/Sequence): GET /admin/pictures/33320543s.jpg HTTP/1.1\r\n]

[Message: GET /admin/pictures/33320543s.jpg HTTP/1.1\r\n]

[Severity level: Chat]

[Group: Sequence]

Request Method: GET

Request URI: /admin/pictures/33320543s.jpg

Request Version: HTTP/1.1

Host: www.elkamarket.ru\r\n

User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n

Accept: image/png,image/*;q=0.8,*/*;q=0.5\r\n

Accept-Language: en-US,en;q=0.5\r\n

Accept-Encoding: gzip, deflate\r\n

Connection: keep-alive\r\n

\r\n

[Full request URI: http://www.elkamarket.ru/admin/pictures/33320543s.jpg]

[HTTP request 1/1]

[Response in frame: 150]

No.	Time	Source	Destination	Protocol	Length	Info
150	4.275628000	77.222.57.253	192.168.1.245	HTTP	3394	HTTP/1.1 200 OK (JPEG JFIF image)

Frame 150: 3394 bytes on wire (27152 bits), 3394 bytes captured (27152 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)

Internet Protocol Version 4, Src: 77.222.57.253 (77.222.57.253), Dst: 192.168.1.245 (192.168.1.245)

Transmission Control Protocol, Src Port: http (80), Dst Port: 51168 (51168), Seq: 43441, Ack: 294, Len: 3328

[14 Reassembled TCP Segments (46768 bytes): #106(2896), #108(4344), #110(5792), #112(1448), #118(2896), #120(2896), #122(2896), #124(5792), #126(5792), #142(2896), #144(2896), #146(1448), #148(1448), #150(3328)]

Hypertext Transfer Protocol

HTTP/1.1 200 OK\r\n

[Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]

[Message: HTTP/1.1 200 OK\r\n]

[Severity level: Chat]

[Group: Sequence]

Request Version: HTTP/1.1
Status Code: 200
Response Phrase: OK
Server: nginx/1.7.6\r\n
Date: Wed, 13 Apr 2016 21:03:18 GMT\r\n
Content-Type: image/jpeg\r\n
Content-Length: 46491\r\n
Connection: keep-alive\r\n
Keep-Alive: timeout=10\r\n
Last-Modified: Sat, 17 Oct 2015 15:54:37 GMT\r\n
ETag: "5b3854-b59b-5224eeddc8940"\r\n
Accept-Ranges: bytes\r\n

\r\n

[HTTP response 1/1]

[Time since request: 0.229393000 seconds]

[Request in frame: 93]

JPEG File Interchange Format

До питань 16-17:

No.	Time	Source	Destination	Protocol	Length	Info
176	12.456787000	192.168.1.245	128.119.245.12	HTTP	401	GET

/wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1

Frame 176: 401 bytes on wire (3208 bits), 401 bytes captured (3208 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)
Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 54352 (54352), Dst Port: http (80), Seq: 1, Ack: 1, Len: 335

Hypertext Transfer Protocol

GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1\r\n
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
Accept-Language: en-US,en;q=0.5\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
\r\n

[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html]

[HTTP request 1/3]

[Response in frame: 178]

[Next request in frame: 309]

Source	Destination	Protocol	Length	Info
178 12.579343000	128.119.245.12	192.168.1.245	HTTP	1168 HTTP/1.1 200 OK (text/html)

Frame 178: 1168 bytes on wire (9344 bits), 1168 bytes captured (9344 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst: 192.168.1.245 (192.168.1.245)
Transmission Control Protocol, Src Port: http (80), Dst Port: 54352 (54352), Seq: 1, Ack: 336, Len: 1102
Hypertext Transfer Protocol

HTTP/1.1 200 OK\r\n

Date: Wed, 13 Apr 2016 21:05:08 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: Wed, 13 Apr 2016 05:59:02 GMT\r\n
ETag: "2e5-53057797d97bd"\r\n
Accept-Ranges: bytes\r\n
Content-Length: 741\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 1/3]

[Time since request: 0.122556000 seconds]

[Request in frame: 176]

[Next request in frame: 309]

[Next response in frame: 311]

Line-based text data: text/html

Source	Destination	Protocol	Length	Info	No.	Time
--------	-------------	----------	--------	------	-----	------

189 12.804023000 192.168.1.245 23.0.37.195 HTTP 473 GET
/assets/hip/us/hip_us_pearsonhighered/images/pearson_logo.gif HTTP/1.1

Frame 189: 473 bytes on wire (3784 bits), 473 bytes captured (3784 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3
(e8:94:f6:2c:bf:a3)

Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 23.0.37.195 (23.0.37.195)

Transmission Control Protocol, Src Port: 49382 (49382), Dst Port: http (80), Seq: 1, Ack: 1, Len:

407 Hypertext Transfer Protocol

GET /assets/hip/us/hip_us_pearsonhighered/images/pearson_logo.gif HTTP/1.1\r\n

Host: www.pearsonhighered.com\r\n

User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n

Accept: image/png,image/*;q=0.8,*/*;q=0.5\r\n

Accept-Language: en-US,en;q=0.5\r\n

Accept-Encoding: gzip, deflate\r\n

Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html\r\n

Connection: keep-alive\r\n

\r\n

[Full request URI:
http://www.pearsonhighered.com/assets/hip/us/hip_us_pearsonhighered/images/pearson_logo.gif]

[HTTP request 1/1]

[Response in frame: 191]

Source	Destination	Protocol	Length	Info	No.	Time
191 12.833498000	23.0.37.195	192.168.1.245	HTTP	305	HTTP/1.1 301	

Moved Permanently

Frame 191: 305 bytes on wire (2440 bits), 305 bytes captured (2440 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)

Internet Protocol Version 4, Src: 23.0.37.195 (23.0.37.195), Dst: 192.168.1.245 (192.168.1.245)

Transmission Control Protocol, Src Port: http (80), Dst Port: 49382 (49382), Seq: 1, Ack: 408, Len: 239

Hypertext Transfer Protocol

HTTP/1.1 301 Moved Permanently\r\n

Server: AkamaiGHost\r\n

Content-Length: 0\r\n

Location:

https://www.pearsonhighered.com/assets/hip/us/hip_us_pearsonhighered/images/pearson_logo.gif\r\n

Date: Wed, 13 Apr 2016 21:05:08 GMT\r\n

Connection: keep-alive\r\n

\r\n

[HTTP response 1/1]

[Time since request: 0.029475000 seconds]

[Request in frame: 189]

					No.	Time
Source	Destination	Protocol	Length	Info		
220 12.992862000	192.168.1.245	128.119.240.90	HTTP	432	GET	
/~kurose/cover_5th_ed.jpg HTTP/1.1						

Frame 220: 432 bytes on wire (3456 bits), 432 bytes captured (3456 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)
Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 128.119.240.90 (128.119.240.90)
Transmission Control Protocol, Src Port: 54646 (54646), Dst Port: http (80), Seq: 1, Ack: 1, Len: 366

Hypertext Transfer Protocol

GET /~kurose/cover_5th_ed.jpg HTTP/1.1\r\n
Host: manic.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n
Accept: image/png,image/*;q=0.8,*/*;q=0.5\r\n
Accept-Language: en-US,en;q=0.5\r\n
Accept-Encoding: gzip, deflate\r\n
Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html\r\n
Connection: keep-alive\r\n
\r\n

[Full request URI: http://manic.cs.umass.edu/~kurose/cover_5th_ed.jpg]
[HTTP request 1/1]
[Response in frame: 237]

		No.	Time	Source	Destination	Protocol	Length	Info		
237		13.109964000	128.119.240.90	192.168.1.245	HTTP	522	HTTP/1.1	302	Found (text/html)	

Frame 237: 522 bytes on wire (4176 bits), 522 bytes captured (4176 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)
Internet Protocol Version 4, Src: 128.119.240.90 (128.119.240.90), Dst: 192.168.1.245 (192.168.1.245)

Transmission Control Protocol, Src Port: http (80), Dst Port: 54646 (54646), Seq: 1, Ack: 367, Len: 456
Hypertext Transfer Protocol
HTTP/1.1 302 Found\r\n

Date: Wed, 13 Apr 2016 21:05:07 GMT\r\n
Server: Apache\r\n
Location: http://caite.cs.umass.edu/~kurose/cover_5th_ed.jpg\r\n
Content-Length: 234\r\n
Connection: close\r\n

Content-Type: text/html; charset=iso-8859-1\r\n

\r\n

[HTTP response 1/1]

[Time since request: 0.117102000 seconds]

[Request in frame: 220]

Line-based text data: text/html

Source	Destination	Protocol	Length	Info	No.	Time
252 13.258.104.000	192.168.1.245	128.119.240.90	HTTP	432	GET	
/~kurose/cover_5th_ed.jpg HTTP/1.1						

Frame 252: 432 bytes on wire (3456 bits), 432 bytes captured (3456 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)

Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 128.119.240.90 (128.119.240.90)

Transmission Control Protocol, Src Port: 54654 (54654), Dst Port: http (80), Seq: 1, Ack: 1, Len: 366

Hypertext Transfer Protocol

GET /~kurose/cover_5th_ed.jpg HTTP/1.1\r\n

Host: caite.cs.umass.edu\r\n

User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n

Accept: image/png,image/*;q=0.8,*/*;q=0.5\r\n

Accept-Language: en-US,en;q=0.5\r\n

Accept-Encoding: gzip, deflate\r\n

Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html\r\n

Connection: keep-alive\r\n

\r\n

[Full request URI: http://caite.cs.umass.edu/~kurose/cover_5th_ed.jpg]

[HTTP request 1/1]

[Response in frame: 302]

Source	Destination	Protocol	Length	Info	No.	Time
302 13.856007000	128.119.240.90	192.168.1.245	HTTP	2814	HTTP/1.1	200 OK (JPEG JFIF image)

Frame 302: 2814 bytes on wire (22512 bits), 2814 bytes captured (22512 bits) on interface 0
Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)
Internet Protocol Version 4, Src: 128.119.240.90 (128.119.240.90), Dst: 192.168.1.245 (192.168.1.245)

Transmission Control Protocol, Src Port: http (80), Dst Port: 54654 (54654), Seq: 98465, Ack: 367, Len: 2748

[25 Reassembled TCP Segments (101212 bytes): #254(4344), #256(8688), #258(1448), #260(2896), #262(1448), #264(1448), #266(4344), #268(4344), #270(2896), #272(4344), #274(2896), #276(1448), #278(13032), #280(4344), #282(1448), #284(2896), #2]

Hypertext Transfer Protocol

HTTP/1.1 200 OK\r\n
Date: Wed, 13 Apr 2016 21:05:07 GMT\r\n
Server: Apache\r\n
Last-Modified: Tue, 15 Sep 2009 18:23:27 GMT\r\n
ETag: "78004-18a68-473a1e0e6e5c0"\r\n
Accept-Ranges: bytes\r\n
Content-Length: 100968\r\n
Connection: close\r\n
Content-Type: image/jpeg\r\n
\r\n

[HTTP response 1/1]

[Time since request: 0.597903000 seconds]

[Request in frame: 252]

JPEG File Interchange Format

Source	Destination	Protocol	Length	Info	No.	Time
309 14.059260000	192.168.1.245	128.119.245.12	HTTP	342	GET /favicon.ico	
HTTP/1.1						

Frame 309: 342 bytes on wire (2736 bits), 342 bytes captured (2736 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)
 Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 128.119.245.12 (128.119.245.12)
 Transmission Control Protocol, Src Port: 54352 (54352), Dst Port: http (80), Seq: 336, Ack: 1103, Len: 276
 Hypertext Transfer Protocol

GET /favicon.ico HTTP/1.1\r\n
 Host: gaia.cs.umass.edu\r\n
 User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n
 Accept: image/png,image/*;q=0.8,*/*;q=0.5\r\n
 Accept-Language: en-US,en;q=0.5\r\n
 Accept-Encoding: gzip, deflate\r\n
 Connection: keep-alive\r\n
 \r\n

[Full request URI: http://gaia.cs.umass.edu/favicon.ico]
 [HTTP request 2/3]
 [Prev request in frame: 176]
 [Response in frame: 311]
 [Next request in frame: 315]

Source	Destination	Protocol	Length	Info	No.	Time
311 14.180595000	128.119.245.12	192.168.1.245	HTTP	552	HTTP/1.1 404 Not Found (text/html)	

Frame 311: 552 bytes on wire (4416 bits), 552 bytes captured (4416 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)
 Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst: 192.168.1.245 (192.168.1.245)
 Transmission Control Protocol, Src Port: http (80), Dst Port: 54352 (54352), Seq: 1103, Ack: 612, Len: 486
 Hypertext Transfer Protocol

HTTP/1.1 404 Not Found\r\n

Date: Wed, 13 Apr 2016 21:05:09 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
 Content-Length: 209\r\n
 Keep-Alive: timeout=5, max=99\r\n
 Connection: Keep-Alive\r\n
 Content-Type: text/html; charset=iso-8859-1\r\n

\r\n

[HTTP response 2/3]

[Time since request: 0.121335000 seconds]

[Prev request in frame: 176]

[Prev response in frame: 178]

[Request in frame: 309]

[Next request in frame: 315]

[Next response in frame: 318]

Line-based text data: text/html

No.	Time	Source	Destination	Protocol	Length	Info
315	14.181505000	192.168.1.245	128.119.245.12	HTTP	372	GET /favicon.ico HTTP/1.1

Frame 315: 372 bytes on wire (2976 bits), 372 bytes captured (2976 bits) on interface 0

Ethernet II, Src: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3), Dst: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3)
Internet Protocol Version 4, Src: 192.168.1.245 (192.168.1.245), Dst: 128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 54352 (54352), Dst Port: http (80), Seq: 612, Ack: 1589, Len: 306
Hypertext Transfer Protocol

GET /favicon.ico HTTP/1.1\r\n

Host: gaia.cs.umass.edu\r\n

User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:45.0) Gecko/20100101 Firefox/45.0\r\n

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n

Accept-Language: en-US,en;q=0.5\r\n

Accept-Encoding: gzip, deflate\r\n

Connection: keep-alive\r\n

\r\n

[Full request URI: http://gaia.cs.umass.edu/favicon.ico]

[HTTP request 3/3]

[Prev request in frame: 309]

[Response in frame: 318]

Source	Destination	Protocol	Length	Info	No.	Time
318	14.301840000	128.119.245.12	192.168.1.245	HTTP	552	HTTP/1.1 404 Not Found (text/html)

Frame 318: 552 bytes on wire (4416 bits), 552 bytes captured (4416 bits) on interface 0

Ethernet II, Src: Tp-LinkT_2c:bf:a3 (e8:94:f6:2c:bf:a3), Dst: b4:6d:83:64:24:b3 (b4:6d:83:64:24:b3)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst: 192.168.1.245 (192.168.1.245)
Transmission Control Protocol, Src Port: http (80), Dst Port: 54352 (54352), Seq: 1589, Ack: 918, Len: 486
Hypertext Transfer Protocol

HTTP/1.1 404 Not Found\r\n

Date: Wed, 13 Apr 2016 21:05:10 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\nContent-Length: 209\r\n

Keep-Alive: timeout=5, max=98\r\n
Connection: Keep-Alive\r\n
Content-Type: text/html; charset=iso-8859-1\r\n

\r\n

[HTTP response 3/3]

[Time since request: 0.120335000 seconds]

[Prev request in frame: 309]

[Prev response in frame: 311]

[Request in frame: 315]

Line-based text data: text/html

Контрольні питання

1. Яку версію протоколу HTTP використовує ваш браузер (1.0 чи 1.1)? Яку версію протоколу використовує сервер?

Мій браузер і сервер використовують HTTP 1.1

2. Які мови (якщо вказано) браузер може прийняти від сервера?

Accept-Language: ru-RU,ru; - тож російську

3. Які IP-адреси вашого комп'ютера та цільового веб-сервера?

192.168.0.101 (мій комп'ютер) та 194.44.29.242 (веб-сервер)

4. Який статусний код сервер повернув у відповіді вашому браузеру?

200

5. Коли на сервері в останній раз був модифікований файл, який запитується браузером?

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6. Скільки байт контенту повертається сервером?

128

7. Переглядаючи нерозібраний байтовий потік пакету, чи бачите ви деякі заголовки в потоці, які не відображаються у вікні деталей пакету? Якщо так, назвіть один з них.

Не помітила

8. Перевірте вміст першого запиту HTTP GET від вашого браузера до сервера. Чи є в ньому заголовок IF-MODIFIED-SINCE?

Ні, немає

9. Перевірте вміст першої відповіді сервера. Чи повернув сервер вміст файлу безпосередньо у відповіді?

Так

10. Перевірте вміст другого запиту HTTP GET. Чи є в ньому заголовок IF-MODIFIED-SINCE? Якщо так, яке значення йому відповідає?

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11. Який код та опис статусу другої відповіді сервера? Чи повернув сервер вміст файлу безпосередньо у відповіді?

304 Not Modified, ні

12. Скільки повідомлень HTTP GET було відправлено вашим браузером?

Одне

13. Скільки пакетів TCP було необхідно для доставки одної відповіді HTTP-сервера?

14

14. Який код та опис статусу був у відповіді сервера?

200 OK

15. Чи зустрічаються у даних пакетів-продовжень протоколу TCP стрічки з кодом та описом статусу відповіді, або ж якісь заголовки протоколу HTTP?

Так, таким чином починається перший пакет протоколу TCP

16. Скільки запитів HTTP GET було відправлено вашим браузером? Якими були цільові IP-адреси запитів?

6 запитів.

128.119.245.12

23.0.37.195

128.119.240.90

128.119.240.90

128.119.245.12

128.119.245.12

17. Чи можете ви встановити, чи були ресурси отримані паралельно чи послідовно? Яким чином?

Послідовно, за часом надходження відповідей та адресами.

Висновок: В ході виконання даної лабораторної роботи було покращено навички використання програми Wireshark для захоплення пакетів. Було проаналізовано протоколи HTTP та було проведено аналіз деталей роботи даних протоколів.