

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
НАВЧАЛЬНО-НАУКОВИЙ КОМПЛЕКС
«ІНСТИТУТ ПРИКЛАДНОГО СИСТЕМНОГО АНАЛІЗУ»
НАЦІОНАЛЬНОГО ТЕХНІЧНОГО УНІВЕРСИТЕТУ УКРАЇНИ
«КИЇВСЬКИЙ ПОЛІТЕХНІЧНИЙ ІНСТИТУТ»
КАФЕДРА МАТЕМАТИЧНИХ МЕТОДІВ СИСТЕМНОГО АНАЛІЗУ

Практична робота №2
з курсу «Комп'ютерні мережі»

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Київ – 2020р.

Пакети для відповідей 1-7 та 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]

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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
	39.9328493000	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\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

Connection: Keep-Alive\r\n

Keep-Alive: timeout=5, max=100\r\n

ETag: "80-53057797dab45"\r\n

\r\n

[HTTP response 1/1]

[Time since request: 0.124705000 seconds]

[Request in frame: 39]

Пакети для відповідей 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

Пакети для відповідей 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]

-----		No.	Time			
Source	Destination	Protocol	Length	Info		
172.17.0.1 (text/html)	10.0.2.15	HTTP	1168	HTTP/1.1	200 OK	

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

				No.	Time
Source	Destination	Protocol	Length Info		
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]

						No.	Time
Source	Destination		Protocol Length Info				
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

					No.	Time
Source	Destination	Protocol	Length	Info		
252 13.258104000	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 (JPEG JFIF image)	128.119.240.90	192.168.1.245	HTTP	2814	HTTP/1.1 200 OK	

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 HTTP/1.1	192.168.1.245	128.119.245.12	HTTP	342	GET /favicon.ico	

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]

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

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

Content-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 запитання:

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

Обидва використовують версію 1.1

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

Американську англійську мову

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

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

Мого комп'ютера: 192.168.1.245

Веб-сервера: 128.119.245.12

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 помітив

8. Перевірте вміст першого запиту HTTP GET від вашого браузера до сервера. Чи є в ньому заголовок IFMODIFIED-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.