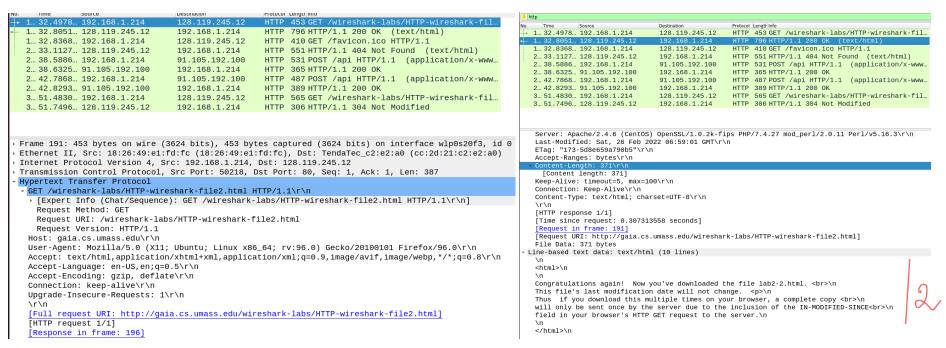


- 1. Мой браузер работает с HTTP версии 1.1. Сервер также работает с HTTP 1.1.
- 2. Языки, принимаемые браузером: en-US, en. Информация о пользователе: браузер Mozilla Firefox 96.0, OC Ubuntu, архитектура x86 64.
- 3. IP адрес моего компьютера: 192.168.1.214, IP адрес сервера: 128.119.245.12
- 4. При загрузке текстовой странице был возвращен статус 200 ОК, при загрузке фавикона статус 404 Not Found.
- 5. Дата последней модификации: 26.02.2022 06:59:01 GMT.
- 6. Размер контента: 128 байт.



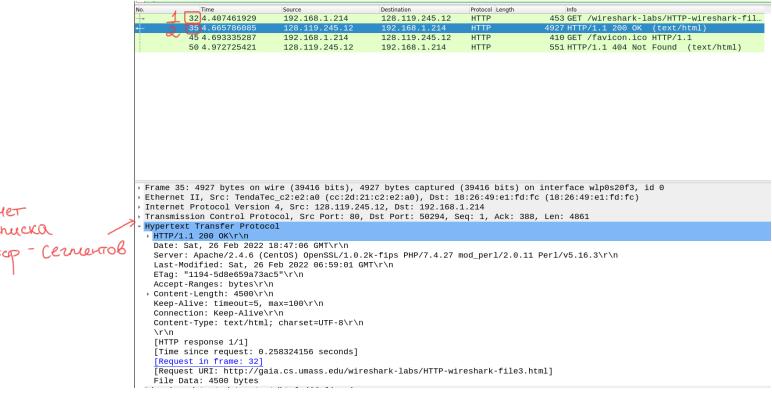
- 1. В первом GET запросе нет IF-MODIFIED-SINCE.
- 2. Да, в ответе сервера мы можем явно видеть код HTML страницы.
- 3. Во втором GET запросе есть IF-MODIFIED-SINCE: 26.02.2022 06:59:01 GMT. Это дата последнего изменения страницы.
- 4. На второй HTTP запрос GET мы получили ответ 304 Not Modified. Содержимое файла было возвращено неявно.

			_				INO. Time	Source
	http							3 192.168.1.214
No.	Time Sou	irce	Destination	Protocol	Length Info		1 32.8051	1 128.119.245.12
	1 32.4978 19		128.119.245.12		453 GET /wireshark-labs/H	HTTP-wireshark-fil	1 32.8368	3 192.168.1.214
	1 32.8051 12	28.119.245.12	192.168.1.214	HTTP	796 HTTP/1.1 200 OK (tex	xt/html)	2 33 . 1127	7 128.119.245.12
	1 32.8368 19	92.168.1.214	128.119.245.12	HTTP	410 GET /favicon.ico HTTF	P/1.1	2 38.5886	5 192.168.1.214
	2 33.1127 12	28.119.245.12	192.168.1.214	HTTP	551 HTTP/1.1 404 Not Four	nd (text/html)	2 38 . 6325	5 91.105.192.100
	2 38.5886 19	2.168.1.214	91.105.192.100	HTTP	531 POST /api HTTP/1.1 ((application/x-www	2 42.7868	3 192,168,1,214
	2 38.6325 91	1.105.192.100	192.168.1.214	HTTP	365 HTTP/1.1 200 OK		2 42 . 8293	3 91.105.192.100
	2 42.7868 19	2.168.1.214	91.105.192.100	HTTP	487 POST /api HTTP/1.1 ((application/x-www	→ 3 51.4836	0 192,168,1,214
	2 42.8293 91	1.105.192.100	192.168.1.214		389 HTTP/1.1 200 OK		3 51.7496	5 128.119.245.12
+	3 51.4830 19	92.168.1.214	128.119.245.12	HTTP	565 GET /wireshark-labs/h	HTTP-wireshark-fil		
+	3 51.7496 12	28.119.245.12	192.168.1.214	HTTP	306 HTTP/1.1 304 Not Modi	ified		
							→ Frame 342:	306 bytes on wire
		h	00 5/5-) 505 5-5-		t		→ Ethernet II	I, Src: TendaTec_c2
					tured (4520 bits) on inte			rotocol Version 4,
					, Dst: TendaTec_c2:e2:a0	(cc:2d:21:c2:e2:a0)	→ Transmission	on Control Protocol
		col Version 4, Src			t: 80, Seq: 1, Ack: 1, Le	an. 400	- Hypertext 1	Transfer Protocol
	Hypertext Trans		10 POIL: 50222, DS	St Poi	t: 80, Seq: 1, ACK: 1, Le	en. 499	→ HTTP/1.1	304 Not Modified\r
		ster Protocol k-labs/HTTP-wires	hark-filo2 html UT	TTD /1	1\r\n		→ [Expert	: Info (Chat/Sequen
					TTP-wireshark-file2.html	UTTD/1 1\r\n]	Respons	e Version: HTTP/1.
	Request Met		GEI /WII GSIIAI K-I	Lans/ II	TIP-WITESHALK-TILEZ.HCHII I	HITP/I.I(I (II)	Status	Code: 304
		: /wireshark-labs/	/HTTD-wirechark-fi	ila2 h	tm]		[Status	Code Description:
		sion: HTTP/1.1	min wireshark ii	LICZ	CIIII		Respons	e Phrase: Not Modi
		.umass.edu\r\n					Date: Sat	, 26 Feb 2022 17:1
			Uhuntu: Linux x86	64: r	v:96.0) Gecko/20100101 Fi	refox/96.0\r\n	Server: A	Apache/2.4.6 (Cento
					ml;q=0.9,image/avif,image		Connection	on: Keep-Alive\r\n
		age: en-US,en;g=0.				, neep, , ,q=e:e	Keep-Aliv	/e: timeout=5, max=
		ing: gzip, deflate					ETag: "17	73-5d8e659a790b5"\r
		ceep-alive\r\n					\r\n	
		cure-Requests: 1\r	\n		2		[HTTP res	sponse 1/1]
		Since: Sat, 26 Feb		T\r\n			[Time sin	nce request: 0.2666
		n: "173-5d8e659a79			-)		Request	in frame: 339]
		L: max-age=0\r\n						URI: http://gaia.c
		3 · - · · · · ·						

	1 32.8051 128.119.245.12	192.168.1.214		796 HTTP/1.1 200 OK (LEXL/IILIII)
	1 32.8368 192.168.1.214	128.119.245.12		410 GET /favicon.ico HTTP/1.1
	2 33.1127 128.119.245.12	192.168.1.214		551 HTTP/1.1 404 Not Found (text/html)
	2 38.5886 192.168.1.214	91.105.192.100	HTTP	531 POST /api HTTP/1.1 (application/x-www
	2 38.6325 91.105.192.100	192.168.1.214	HTTP	365 HTTP/1.1 200 OK
	2 42.7868 192.168.1.214	91.105.192.100	HTTP	487 POST /api HTTP/1.1 (application/x-www
	2 42.8293 91.105.192.100	192.168.1.214	HTTP	389 HTTP/1.1 200 OK
	→ 3 51.4830 192.168.1.214	128.119.245.12	HTTP	565 GET /wireshark-labs/HTTP-wireshark-fil
	→ 3 51.7496 128.119.245.12	192.168.1.214	HTTP	306 HTTP/1.1 304 Not Modified
ı				
				7
	Frame 342: 306 bytes on wire (2448 bits), 306 by	tes cap	tured (2448 bits) on interface wlp0s20f3, ic
				, Dst: 18:26:49:e1:fd:fc (18:26:49:e1:fd:fc)
	Internet Protocol Version 4, S	rc: 128.119.245.12	, Dst:	192.168.1.214
)	 Transmission Control Protocol, 	Src Port: 80, Dst	Port:	50222, Seq: 1, Ack: 500, Len: 240
	- Hypertext Transfer Protocol			
	→ HTTP/1.1 304 Not Modified\r\	า		
П	→ [Expert Info (Chat/Sequence	e): HTTP/1.1 304 No	t Modi	fied\r\n]
Н	Response Version: HTTP/1.1			
	Status Code: 304			
	[Status Code Description: N	lot Modified]		
	Response Phrase: Not Modifi	.ed		
	Date: Sat, 26 Feb 2022 17:11	:58 GMT\r\n		
	Server: Apache/2.4.6 (CentOS)) OpenSSL/1.0.2k-f:	ips PHP	/7.4.27 mod_perl/2.0.11 Perl/v5.16.3\r\n
,	Connection: Keep-Alive\r\n			
	Keep-Alive: timeout=5, max=10	00\r\n		
	ETag: "173-5d8e659a790b5"\r\i	1		
	\r\n			
	[HTTP response 1/1]			
	[Time since request: 0.266603	3846 seconds]		
	[Request in frame: 339]	-		
	[Request URI: http://gaia.cs	.umass.edu/wiresha	rk-labs	/HTTP-wireshark-file2.html]
	ı • · · · · · · · · · · · · · · · · · ·			•

HTTP 453 GET /wireshark-labs/HTTP-wireshark-fil... HTTP 796 HTTP/1.1 200 OK (text/html)

128.119.245.12 192.168.1.214



- 1. Браузер отправил 2 GET запроса. Один для непосредственно страницы, второй для фавикона. Пакет номер 32 содержит сообщение GET.
- 2. Пакет 35 содержит ответ на первый GET запрос.
- 3. В этом вопросе я немного запуталась, но мне кажется, что один. Так как когда я загружала картинку в задании 4, у меня между полями Transmission Transfer Protocol и Hypertext Transfer Protocol было поле с перечисленными tcp сегментами. Здесь такого нет, к сожалению.
- 4. Нет.

	Time	Source	Destination	Protocol Length	Info
	92 12.451030726	192.168.1.214	128.119.245.12	HTTP	453 GET /wireshark-labs/HTTP-wireshark-fil
	98 12.904874281	128.119.245.12	192.168.1.214	HTTP	1367 HTTP/1.1 200 OK (text/html)
	106 12.932306736	192.168.1.214	128.119.245.12	HTTP	410 GET /pearson.png HTTP/1.1
	112 13.004051430	192.168.1.214	178.79.137.164	HTTP	377 GET /8E_cover_small jpg HTTP/1.1
	114 13.077079143	178.79.137.164	192.168.1.214	HTTP	237 HTTP/1.1 301 Moved Permanently
	125 13.196139963	128.119.245.12	192.168.1.214	HTTP	782 HTTP/1.1 200 OK / (PNG)
	133 13.298403806	192.168.1.214	128.119.245.12	HTTP	410 GET /favicon.ico HTTP/1.1
	239 13.562708356	128.119.245.12	192.168.1.214	HTTP	550 HTTP/1.1 404 Not Found (text/html)
-rame	e 114: 237 bytes on w	ire (1896 bits), 23	7 bytes captured (1	896 bits) on i	interface wlp0s20f3, id 0
	,	, , ,	, ,	,	interface wlp0s20f3, id 0 :fc (18:26:49:e1:fd:fc)
ther	,	c_c2:e2:a0 (cc:2d:2:	1:c2:e2:a0), Dst: 1	8:26:49:é1:fd:	· · · · · · · · · · · · · · · · · · ·
ther Inter	net II, Src: TendaTe	c_c2:e2:a0 (cc:2d:23 4, Src: 178.79.137	1:c2:e2:a0), Dst: 1 .164, Dst: 192.168.	8:26:49:é1:fd: 1.214	:fc (18:26:49:e1:fd:fc)
Ether Inter Trans	rnet II, Src: TendaTe rnet Protocol Version	c_c2:e2:a0 (cc:2d:21 4, Src: 178.79.137 ocol, Src Port: 80,	1:c2:e2:a0), Dst: 1 .164, Dst: 192.168.	8:26:49:é1:fd: 1.214	:fc (18:26:49:e1:fd:fc)
ther Inter Trans Typer	rnet II, Src: TendaTe rnet Protocol Version smission Control Proto rtext Transfer Protoc P/1.1 301 Moved Perma	c_c2:e2:a0 (cc:2d:2d 4, Src: 178.79.137 ocol, Src Port: 80, ol anently\r\n	1:c2:e2:a0), Dst:`1 .164, Dst: 192.168. Dst Port: 39842, S	8:26:49:e1:fd: 1.214 eq: 1, Ack: 31	:fc (18:26:49:e1:fd:fc)
ther Inter Trans Typer HTT	rnet II, Src: TendaTe rnet Protocol Version smission Control Protoc rext Transfer Protoc P/1.1 301 Moved Perma Expert Info (Chat/Sec	c_c2:e2:a0 (cc:2d:2d 4, Src: 178.79.137 ocol, Src Port: 80, ol anently\r\n quence): HTTP/1.1 30	1:c2:e2:a0), Dst:`1 .164, Dst: 192.168. Dst Port: 39842, S	8:26:49:e1:fd: 1.214 eq: 1, Ack: 31	:fc (18:26:49:e1:fd:fc)
ther Inter Trans Iyper HTT • [rnet II, Src: TendaTernet Protocol Version smission Control Protocol Text Transfer Protocol P/1.1 301 Moved Perma Expert Info (Chat/Sec esponse Version: HTTF	c_c2:e2:a0 (cc:2d:2d 4, Src: 178.79.137 ocol, Src Port: 80, ol anently\r\n quence): HTTP/1.1 30	1:c2:e2:a0), Dst:`1 .164, Dst: 192.168. Dst Port: 39842, S	8:26:49:e1:fd: 1.214 eq: 1, Ack: 31	:fc (18:26:49:e1:fd:fc)
Ether Inter Irans Hyper HTT • [R	rnet II, Src: TendaTernet Protocol Version Smission Control Protocol Text Transfer Protocol Print 301 Moved Perma Expert Info (Chat/Secesponse Version: HTTP tatus Code: 301	c_c2:e2:a0 (cc:2d:2d 4, Src: 178.79.137 ocol, Src Port: 80, ol anently\r\n quence): HTTP/1.1 30	1:c2:e2:a0), Dst:`1 .164, Dst: 192.168. Dst Port: 39842, S	8:26:49:e1:fd: 1.214 eq: 1, Ack: 31	:fc (18:26:49:e1:fd:fc)
Ether Inter Trans Hyper HTT + [R S	rnet II, Src: TendaTernet Protocol Version Smission Control Protocol Text Transfer Protocol P/1.1 301 Moved Perma Expert Info (Chat/Segesponse Version: HTTF tatus Code: 301 Status Code Descripti	c_c2:e2:a0 (cc:2d:2d 4, Src: 178.79.137 ocol, Src Port: 80, ol anently\r\n quence): HTTP/1.1 30 P/1.1 Lon: Moved Permanent	1:c2:e2:a0), Dst:`1 .164, Dst: 192.168. Dst Port: 39842, S	8:26:49:e1:fd: 1.214 eq: 1, Ack: 31	:fc (18:26:49:e1:fd:fc)
ther Inter Trans Iyper HTT F R S E R	rnet II, Src: TendaTernet Protocol Version Smission Control Protocol Text Transfer Protocol Print 301 Moved Perma Expert Info (Chat/Secesponse Version: HTTP tatus Code: 301	c_c2:e2:a0 (cc:2d:2d 4, Src: 178.79.137 ocol, Src Port: 80, ol anently\r\n quence): HTTP/1.1 30 P/1.1 Lon: Moved Permanent J Permanently	1:c2:e2:a0), Dst:`1 .164, Dst: 192.168. Dst Port: 39842, S 1 Moved Permanently	8:26:49:e1:fd: 1.214 eq: 1, Ack: 31	:fc (18:26:49:e1:fd:fc)

- 1. Былоотправлено4GETзапросанаИнтернет-адреса:http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html,http://gaia.cs.umass.edu/pearson.png,http://gaia.cs.umass.edu/8E_cover_small.jpg,http://gaia.cs.umass.edu/favicon.ico.
- 2. Два изображения были загружены параллельно, так как сначала поступил GET запрос для картинки pearson.png, затем для картинки 8E_cover_small.jpg, а ответы на эти запросы пришли в другом порядке.

1)
Frame 95: 528 bytes on wire (4224 bits), 528 bytes captured (4224 bits) on interface wlp0s20f3, id 0 * Ethernet II, Src: 18:26:49:e1:fd:fc (18:26:49:e1:fd:fc), Dst: TendaTec_c2:e2:a0 (cc:2d:21:c2:e2:a0) * Internet Protocol Version 4, Src: 192:168.1.214, Dst: 128.119.245.12 * Transmission Control Protocol, Src Port: 50288, Dst Port: 80, Seq: 1, Ack: 1, Len: 462 * Hypertext Transfer Protocol - GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1\r\n * [Expert Info (chat/Sequence): GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1\r\n] Request URI: /wireshark-labs/protected_pages/HTTP-wireshark-file5.html Request URI: /wireshark-labs/protected_pages/HTTP-wireshark-file5.html Request Version: HTTP/1.1 Host: gaia.cs.umass.edu\r\n User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:96.0) Gecko/20100101 Firefox/96.0\r\n Accept-Language: en-US, en;q=0.5\r\n Accept-Language: en-US, en;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 Upgrade-Insecure-Requests: 1\r\n *Authorization: Basic d2lyzXMOYXJrLXNOdWRlbnR2Om51dHdvcms=\r\n Credentials: Wireshark-students:network \r\n [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file5.html]
1)

- 1. На первый GET запрос пришел ответ 401 Unauthorized. Что значит, что пользователь не был авторизован.
- 2. Вторым GET запросом мы передали данные пользователя: логин и пароль. В GET запросе появилось поле Authorization, в котором через Credentials передаются эти данные.