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Class: IUP CS B

NIM : 21/472698/PA/20322

1. Which of the following protocols are shown as appearing (i.e., are listed in the Wireshark "protocol" column) in your trace file: TCP, QUIC, HTTP, DNS, UDP, TLSv1.2?

	TCP		TLSv1.2	2	DNS			UDP			HTTP	
	- ·^ ·	li ulas	Protocol	1			<b>Q</b> Q	<b>Q <u>H</u></b>				
252	Protocol	Length Info	TCP	Length 54	Protocol I	ength :					D . ^ .	
.250	SSDP r STP	215 M-SE 60 RST.	TCP	60	BROWSER	243		^.			Protocol	Leng
	r STP	60 RST.	TCP	60	BROWSER	243			Length Info		0xa0a0	
	r STP	60 RST.	TCP	54	BROWSER	243		TLSv1.2	556 Apr			
	r STP	60 RST.	TCP	54	DRUWSER	243		TLSv1.2	679 Apr			
ee-(fo		60 RST.	TCP	60	DNS	76	120	TLSv1.2	93 Apr		0xa0a0	
103	TCP	55 6218	TLSv1.2				L39	TLSv1.2 TLSv1.2	93 Apr		HTTP	5
	TCP	66 443	TLSv1.2		DNS	420		TLSV1.2	341 Apr 339 Apr		HTTP	2
95	TCP	55 6218	TLSv1.2	146	DNS	77 :		TLSv1.2	93 Apr			4
	TCP	66 443	TLSv1.2	93	DNS	377	L02	TLSv1.2	93 Apr	L	ICMPv6	_
95	TCP	55 6218	TLSv1.2	862	DNS	98	102	TLSv1.2	884 Apr		ICMPv6	_
	TCP	66 443	TLSv1.2	619	DNS	398	.02	TLSv1.2	557 Apr		TCHD C	
	TCP	60 443	TLSv1.2	93 .	DNS	79 :		TLSv1.2	335 Apr			
.14	TCP	54 [TCF	TLSv1.2	558	DNS	447		UDP	1152 521			
	TCP	60 443	TLSv1.2	85	DNS	75	. 250	UDP	1116 521			
.14	TCP	54 [TCF	TLSv1.2	93 .	DNS	346		UDP	1152 521			
.12	TCP	66 6221	TLSv1.2	93 .	DNS	73	.250	UDP	1116 521			
139	TCP	55 6217	TLSv1.2	808	DNS	438	. 250	UDP	1116 521			
	TCP	66 443	TLSv1.2	420				UDP	1152 521			
132	TCP	55 6218	TLSv1.2	138	DNS	89 :		UDP	1152 521			
.12	TCP	66 6221	TLSv1.2	492	DNS	353		UDP	1152 521			
	TCP	66 443 66 80 →	TLSv1.2		DNS	89	. 250	UDP	1116 521			
.12	TCP TCP	54 6221	TLSv1.2		DNS	353	. 250	UDP	1116 521			
.12	TCP	66 80 ±	TLSv1.2		DNS	85	. 250	UDP	1116 521			
.12	TCP	54 6221	TLSv1.2		DNS	385		UDP	1152 521			
.12	TCP	60 80 →	TLSv1.2		DNS	74	. 250	UDP	1116 521			
.12	TCP	54 6221	TLSv1.2		DNS	418		UDP	1152 521			
99	TCP	55 6217	TLSv1.2		DNS	75		UDP	1152 521			
	TCP	66 443	TLSv1.2		DNS	346	. 250	UDP	1116 521			
95	TCP	55 6219	TLSv1.2				. 250	UDP	1116 521			
	TCP	66 443	TLSv1.2		DNS	91 :		UDP	1152 521			
4	TCP	55 6221	TLSv1.2		DNS	355	. 250	UDP	1116 521			
	TCP	66 443	TLSv1.2		DNS	79 :		UDP	1152 521			
95	TCP	55 6219	TLSv1.2		DNS	447		UDP	1152 521			
			TLSv1.2		DNS	74	. 250	UDP	1116 521			
			TLSv1.2		DNS	439 :	. 250	UDP	1116 521			
			180 hits) on interfa		НТТР	544		UDP	1152 521			
			w·a···		НТТР	293						
					LLDP	415		(1944 hits)				
					LLUI	413		M A⊔	-			

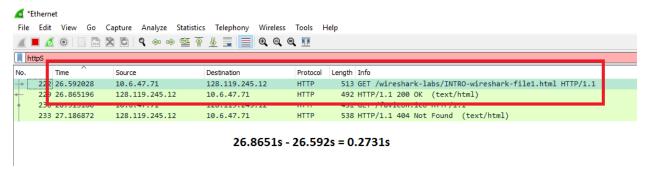
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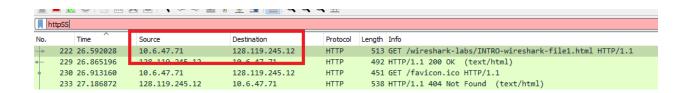
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2. How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received? (By default, the value of the Time column in the packet-listing window is the amount of time, in seconds, since Wireshark tracing began. (If you want to display the Time field in time-of-day format, select the Wireshark View pull down menu, then select Time Display Format, then select Time-of-day.)

## Answer: 0.2731 Second



3. What is the Internet address of the gaia.cs.umass.edu (also known as www-net.cs.umass.edu)? What is the Internet address of your computer or (if you are using the trace file) the computer that sent the HTTP GET message?



Source: 10.6.47.71

Destination: 128.119.245.12

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4. Expand the information on the HTTP message in the Wireshark "Details of selected packet" window (see Figure 3 above) so you can see the fields in the HTTP GET request message. What type of Web browser issued the HTTP request? The answer is shown at the right end of the information following the "User-Agent:" field in the expanded HTTP message display. [This field value in the HTTP message is how a web server learns what type of browser you are using.]

• Firefox, Safari, Microsoft Internet Edge, Other

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

Connection: keep-alive\r\n

Cache-Control: max-age=0\r\n

Upgrade-Insecure-Requests: 1\r\n

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) Apple WebKit/537; Accept: text/html,application/xhtml+xml,application/xml;q=0

Accept-Encourng: gzrp, deriate\r\n

Accept-Language: en-US,en;q=0.9\r\n
\r\n

[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wire
[HTTP request 1/1]
```

## Agent : Mozilla Firefox

5. Expand the information on the Transmission Control Protocol for this packet in the Wireshark "Details of selected packet" window (see Figure 3 in the lab writeup) so you can see the fields in the TCP segment carrying the HTTP message. What is the destination port number (the number following "Dest Port:" for the TCP segment containing the HTTP request) to which this HTTP request is being sent?

**Destination port: 80**