Report for LAB 9-1: ARP

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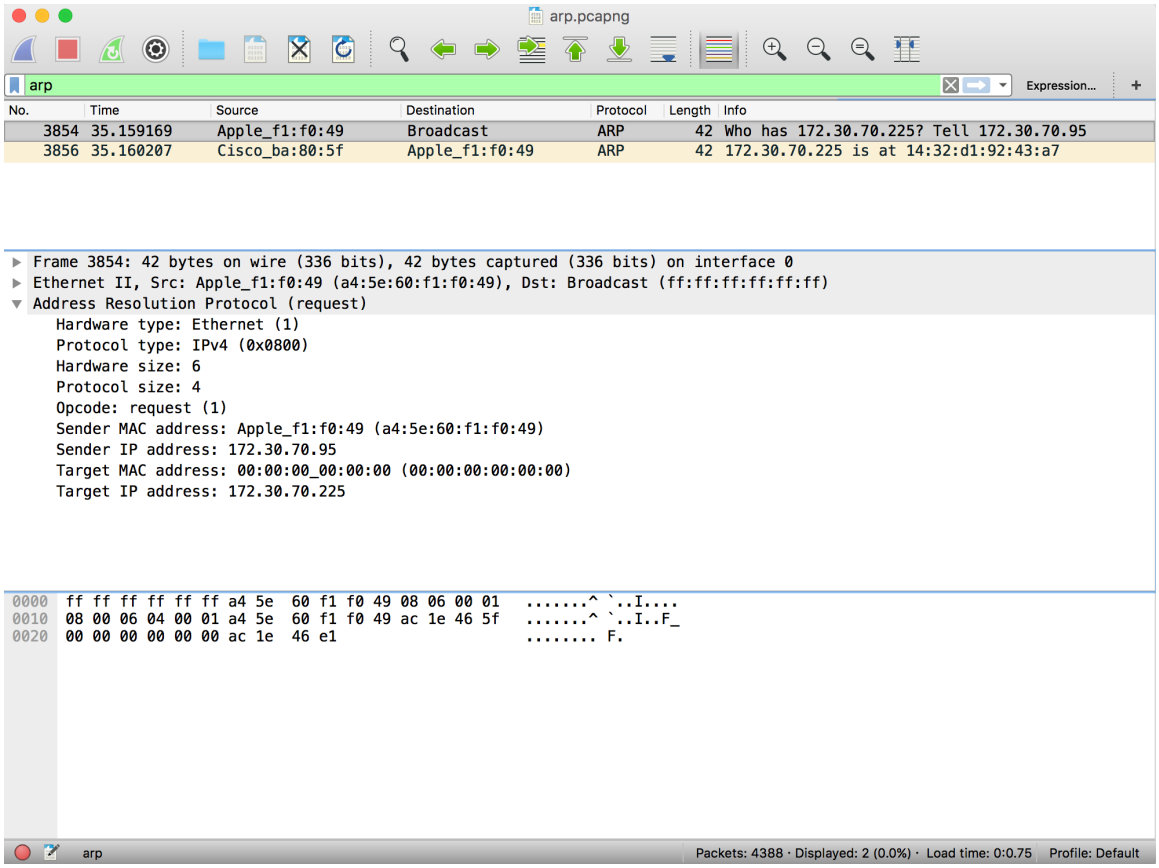
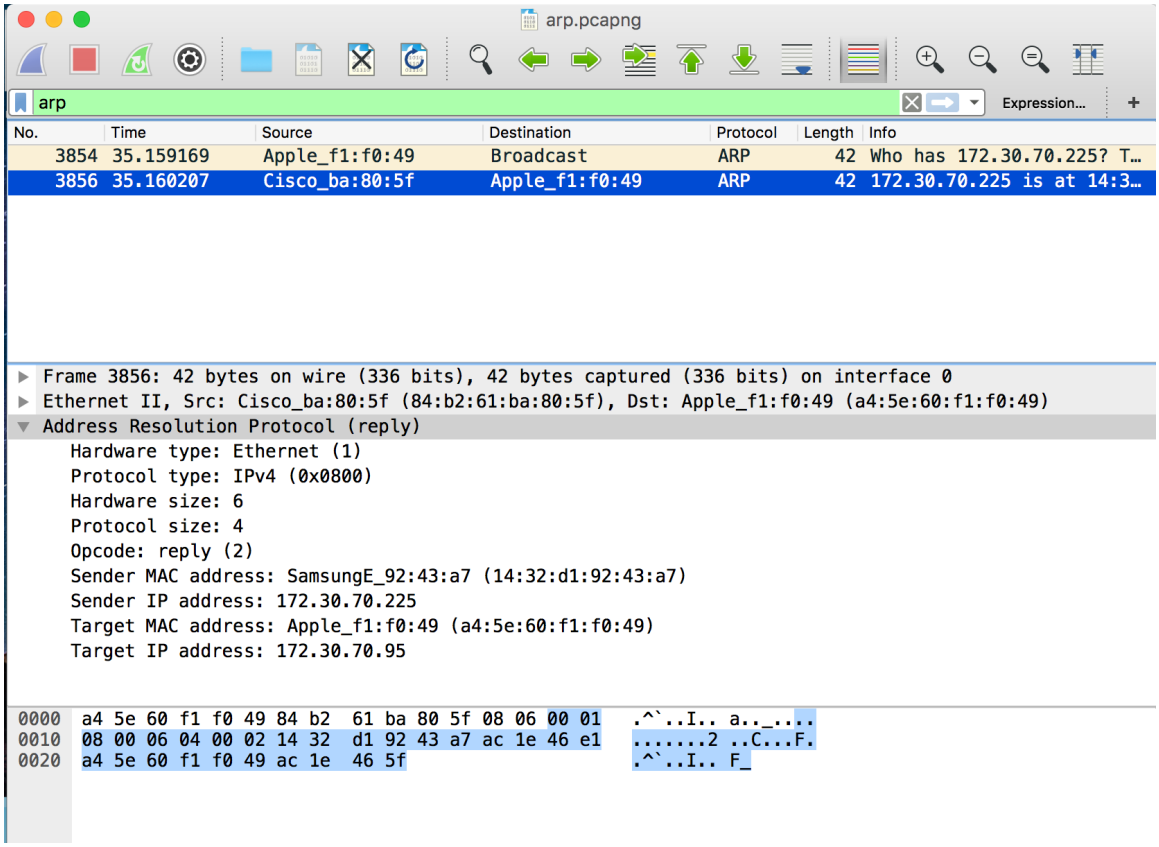
Part I		
1	a. Hardware type: 00 01	b. Protocol type: 08 00
	c. Hardware length: 06	d. Protocols length: 04
	e. Operation code: 00 01 Meaning: request또는 reply, 즉 응답또는 요청 중 나타내고, 그에 따른 주소 해결 유형을 알려준다.	
	f. Source hardware address. a4 5e 60 f1 f0 49	g. Source IP address? ac 1e 46 5f
	h. Destination hardware address: 00 00 00 00 00 00	i. Destination IP address: ac 1e 46 e1
2	Are answers to question 1 verified by the information in the detail pane lane? Yes. ▶ Frame 3854: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface 0 ▶ Ethernet II, Src: Apple_f1:f0:49 (a4:5e:60:f1:f0:49), Dst: Broadcast (ff:ff:ff:ff:ff:ff) ▼ Address Resolution Protocol (request) Hardware type: Ethernet (1) Protocol type: IPv4 (0x0800) Hardware size: 6 Protocol size: 4 Opcode: request (1) Sender MAC address: Apple_f1:f0:49 (a4:5e:60:f1:f0:49) Sender IP address: 172.30.70.95 Target MAC address: 00:00:00_00:00:00 (00:00:00:00:00:00) Target IP address: 172.30.70.225	
3	Type of destination hardware address: Broadcast Which interface does the destination hardware address define? Network layer와 Link layer 사이	
4	Number of bytes of 0s: 6 Explain : 타겟 Mac 주소를 의미하기 때문에 6개의 16진수가 나오게 되는데, destination hardware address를 알지 못하므로 00이 6개가 나오게 된다.	

Part II		
1	a. Hardware type: 00 01	b. Protocol type: 08 00
	c. Hardware length: 06	d. Protocols length: 04
	e. Operation code: 00 02	
	f. Source hardware address. 14 32 d1 92 43 a7	g. Source IP address? ac 1e 46 e1

	h. Destination hardware address: a4 5e 60 f1 f0 49	i. Destination IP address: ac 1e 46 5f
2	Are answers to question 1 verified by the information in the detail pane lane? Yes. ▶ Frame 3856: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface 0 ▶ Ethernet II, Src: Cisco_ba:80:5f (84:b2:61:ba:80:5f), Dst: Apple_f1:f0:49 (a4:5e:60:f1:f0:49) ▼ Address Resolution Protocol (reply) Hardware type: Ethernet (1) Protocol type: IPv4 (0x0800) Hardware size: 6 Protocol size: 4 Opcode: reply (2) Sender MAC address: SamsungE_92:43:a7 (14:32:d1:92:43:a7) Sender IP address: 172.30.70.225 Target MAC address: Apple_f1:f0:49 (a4:5e:60:f1:f0:49) Target IP address: 172.30.70.95	
3	Type of destination hardware address: Unicast Which interface does the destination hardware address define? Network layer와 Link layer 사이	

- **arp wireshark** 캡처





- 한줄 소감

와이어 샤크를 돌려보면서 이것저것 알아봐야 했고, 찾아봐야 했습니다. 덕분에 링크 계층이라던가, 네트워크 계층 등 새로운 것을 많이 알게 되었습니다. 아직은 생소하고 어렵네요.