

Capture HTTP packets by visiting a HTTP Website, analyse the packets and significance of its various fields. Do the same for HTTPS packets and compare both

HTTP

Packet length

| No. | Time | Source | Destination | Protocol | Length | Info |
|-----|----------|----------------|----------------|----------|--------|--|
| 52 | 7.295085 | 192.168.0.104 | 144.76.162.245 | HTTP | 705 | POST /domains HTTP/1.1 (application/x-www-form-urlencoded) |
| 80 | 8.537940 | 144.76.162.245 | 192.168.0.104 | HTTP | 855 | HTTP/1.0 200 OK (text/html) |
| 88 | 8.705876 | 192.168.0.104 | 144.76.162.245 | HTTP | 542 | GET /static/images/icons/lightbulb.png HTTP/1.1 |
| 91 | 8.722185 | 192.168.0.104 | 142.251.42.78 | HTTP | 432 | GET /translate_a/element.js?cb=googleTranslateElementInit HTTP/1.1 |
| 96 | 8.851948 | 192.168.0.104 | 144.76.162.245 | HTTP | 544 | GET /static/images/icons/information.png HTTP/1.1 |
| 99 | 8.854105 | 192.168.0.104 | 144.76.162.245 | HTTP | 537 | GET /static/images/icons/tick.png HTTP/1.1 |
| 100 | 8.875127 | 142.251.42.78 | 192.168.0.104 | HTTP | 495 | HTTP/1.1 301 Moved Permanently |
| 102 | 8.899272 | 144.76.162.245 | 192.168.0.104 | HTTP | 11... | HTTP/1.0 200 OK (PNG) |
| 131 | 9.091622 | 144.76.162.245 | 192.168.0.104 | HTTP | 11... | HTTP/1.0 200 OK (PNG) |
| 134 | 9.093361 | 144.76.162.245 | 192.168.0.104 | HTTP | 908 | HTTP/1.0 200 OK (PNG) |
| 204 | 9.340622 | 192.168.0.104 | 144.76.162.245 | HTTP | 557 | GET /static/images/tab_right_current.png HTTP/1.1 |
| 207 | 9.340993 | 192.168.0.104 | 144.76.162.245 | HTTP | 556 | GET /static/images/tab_left_current.png HTTP/1.1 |
| 210 | 9.348944 | 192.168.0.104 | 144.76.162.245 | HTTP | 550 | GET /static/images/input_fade.png HTTP/1.1 |
| 230 | 9.536335 | 144.76.162.245 | 192.168.0.104 | HTTP | 731 | HTTP/1.0 200 OK (PNG) |
| 232 | 9.538301 | 144.76.162.245 | 192.168.0.104 | HTTP | 603 | HTTP/1.0 200 OK (PNG) |
| 235 | 9.549671 | 144.76.162.245 | 192.168.0.104 | HTTP | 875 | HTTP/1.0 200 OK (PNG) |

Time

Source Ip

Destination Ip

Protocol used

Most information that is sent over the Internet. since the data is not encrypted. We can see all the information in the packet ..(response code , length ,status etc)

HTTPS

HTTPS uses an encryption protocol to encrypt communications. The protocol is called Transport Layer Security (TLS), although formerly it was known as Secure Sockets Layer (SSL).

| No. | Time | Source | Destination | Protocol | Length | No. |
|-----|-----------|----------------|----------------|----------|--------|---|
| 49 | 6.612182 | 23.63.84.147 | 192.168.0.104 | TLSv... | 85 | Encry... |
| 52 | 6.612752 | 192.168.0.104 | 23.63.84.147 | TLSv... | 100 | Application Data |
| 53 | 6.613704 | 192.168.0.104 | 23.63.84.147 | TLSv... | 85 | Encrypted Alert |
| 74 | 8.375692 | 192.168.0.104 | 91.108.56.143 | SSL | 159 | Continuation Data |
| 79 | 8.497637 | 192.168.0.104 | 23.11.214.49 | TLSv... | 657 | Client Hello |
| 81 | 8.527208 | 23.11.214.49 | 192.168.0.104 | TLSv... | 318 | Server Hello, Change Cipher Spec, Application Data, Application Data |
| 82 | 8.532944 | 192.168.0.104 | 23.11.214.49 | TLSv... | 134 | Change Cipher Spec, Application Data |
| 83 | 8.533160 | 192.168.0.104 | 23.11.214.49 | TLSv... | 146 | Application Data |
| 87 | 8.533438 | 192.168.0.104 | 23.11.214.49 | TLSv... | 814 | Application Data |
| 92 | 8.568935 | 23.11.214.49 | 192.168.0.104 | TLSv... | 325 | Application Data |
| 93 | 8.568935 | 23.11.214.49 | 192.168.0.104 | TLSv... | 124 | Application Data |
| 97 | 8.569552 | 192.168.0.104 | 23.11.214.49 | TLSv... | 85 | Application Data |
| 99 | 8.601906 | 91.108.56.143 | 192.168.0.104 | SSL | 223 | Continuation Data |
| 100 | 8.604017 | 192.168.0.104 | 91.108.56.143 | SSL | 367 | Continuation Data |
| 103 | 8.655875 | 23.11.214.49 | 192.168.0.104 | TLSv... | 1099 | Application Data |
| 109 | 9.197419 | 192.168.0.104 | 13.69.239.73 | TLSv... | 571 | Client Hello |
| 115 | 9.351321 | 13.69.239.73 | 192.168.0.104 | TLSv... | 623 | Server Hello, Certificate, Certificate Status, Server Key Exchange, Server Hello Done |
| 117 | 9.361039 | 192.168.0.104 | 13.69.239.73 | TLSv... | 212 | Client Key Exchange, Change Cipher Spec, Encrypted Handshake Message |
| 118 | 9.520793 | 13.69.239.73 | 192.168.0.104 | TLSv... | 105 | Change Cipher Spec, Encrypted Handshake Message |
| 123 | 9.521159 | 192.168.0.104 | 13.69.239.73 | TLSv... | 248 | Application Data |
| 128 | 9.521256 | 192.168.0.104 | 13.69.239.73 | TLSv... | 404 | Application Data |
| 134 | 9.675023 | 13.69.239.73 | 192.168.0.104 | TLSv... | 907 | Application Data |
| 164 | 13.095626 | 192.168.0.104 | 172.217.166.42 | TLSv... | 93 | Application Data |
| 165 | 13.128039 | 172.217.166.42 | 192.168.0.104 | TLSv... | 93 | Application Data |
| 172 | 13.805894 | 192.168.0.104 | 204.79.197.219 | TLSv... | 571 | Client Hello |
| 177 | 13.823979 | 204.79.197.219 | 192.168.0.104 | TLSv... | 1419 | Server Hello, Certificate, Certificate Status, Server Key Exchange, Server Hello Done |
| 179 | 13.839091 | 192.168.0.104 | 204.79.197.219 | TLSv... | 212 | Client Key Exchange, Change Cipher Spec, Encrypted Handshake Message |
| 180 | 13.839522 | 192.168.0.104 | 204.79.197.219 | TLSv... | 153 | Application Data |
| 181 | 13.839987 | 192.168.0.104 | 204.79.197.219 | TLSv... | 869 | Application Data |
| 185 | 13.840161 | 192.168.0.104 | 204.79.197.219 | TLSv... | 236 | Application Data |
| 189 | 13.855188 | 204.79.197.219 | 192.168.0.104 | TLSv... | 380 | New Session Ticket, Change Cipher Spec, Encrypted Handshake Message |
| 190 | 13.855188 | 204.79.197.219 | 192.168.0.104 | TLSv... | 123 | Application Data |

Time of connection

Source ip

Destination ip

Encrypted data being sent

Protocol used for encryption along with its version