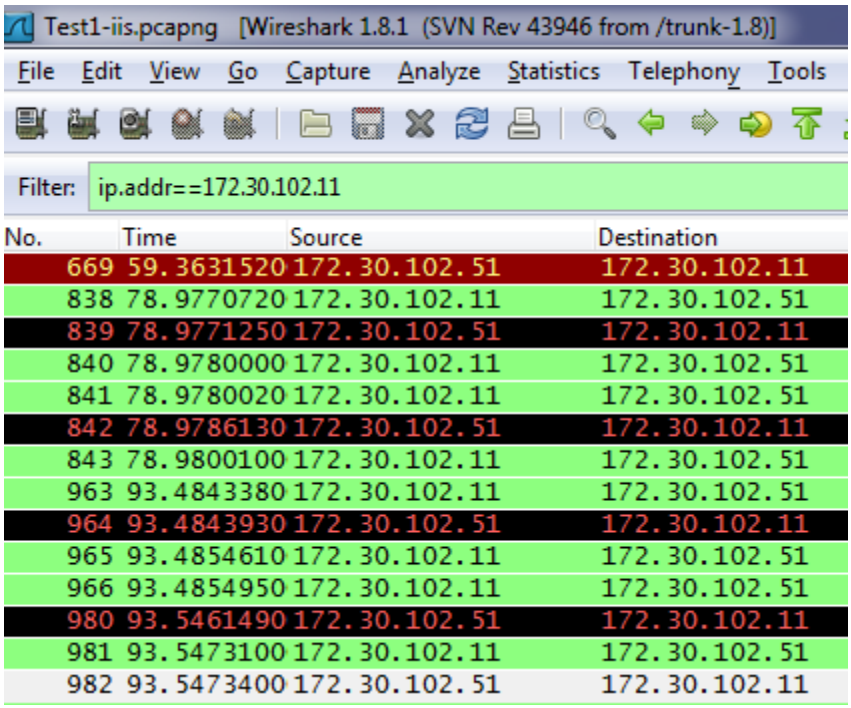
TEST 1: F5 and IIS co-resident - Page Cannot Be Displayed

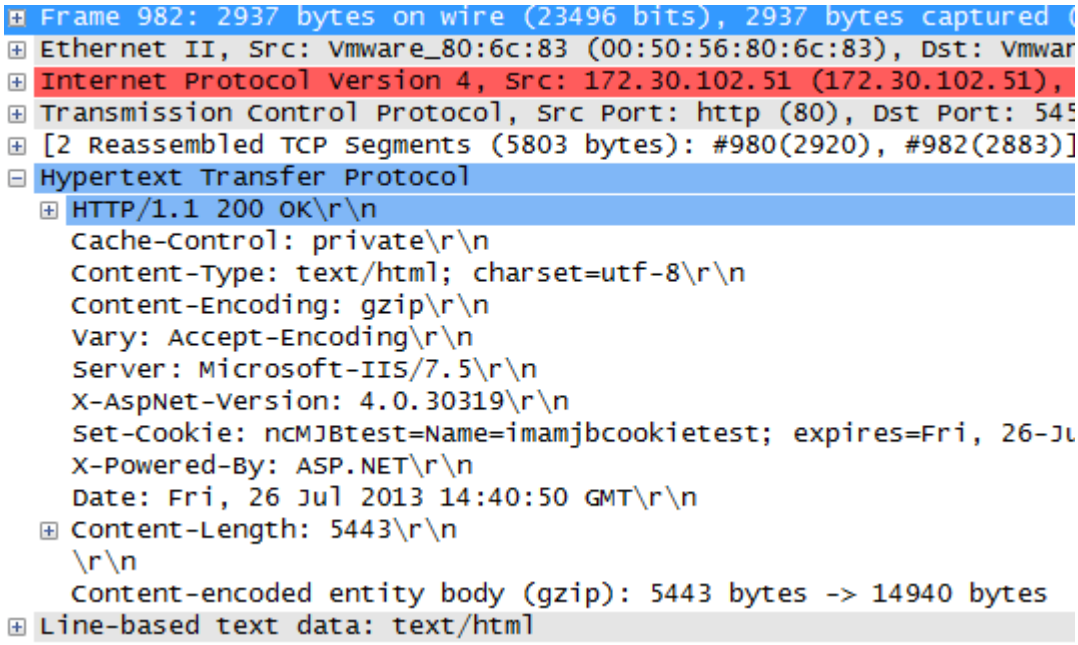
Data Leaving IIS before hitting wire

Referring to figure 1 below, this packet capture was taken on the IIS server and looks at data between the IIS server and the F5 (172.30.102.11).



(Figure 1)

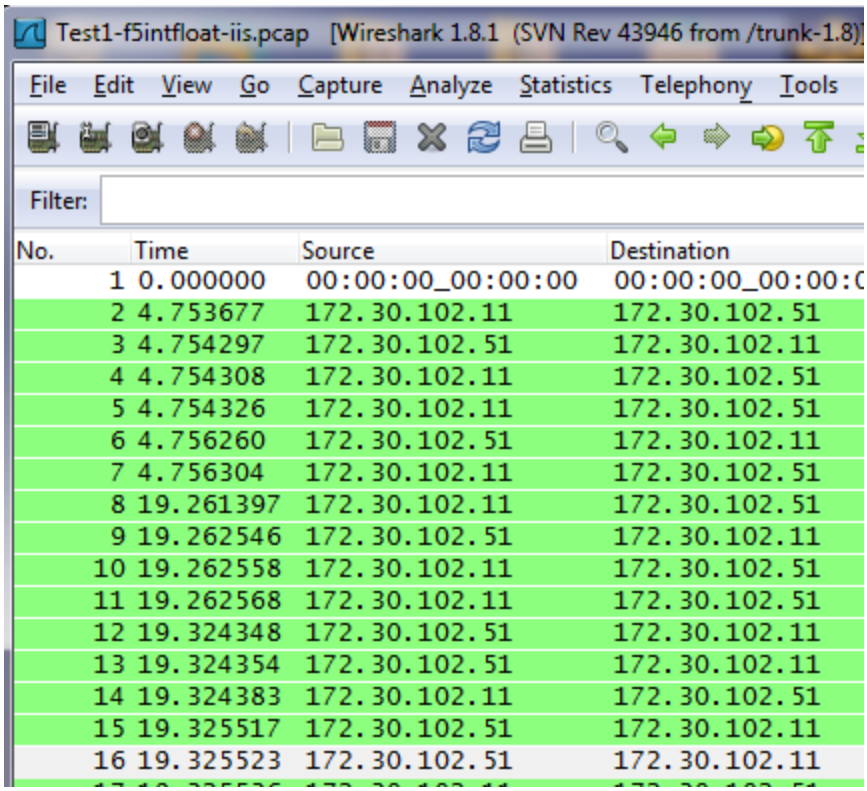
Figure 2 shows the contents of the complete HTTP data leaving the IIS server. The payload is compressed ("Content-Encoding: gzip") and Wireshark is able to decompress it ("Content-encoded entity body (gzip): 5443 bytes -> 14940 bytes")



(Figure 2)

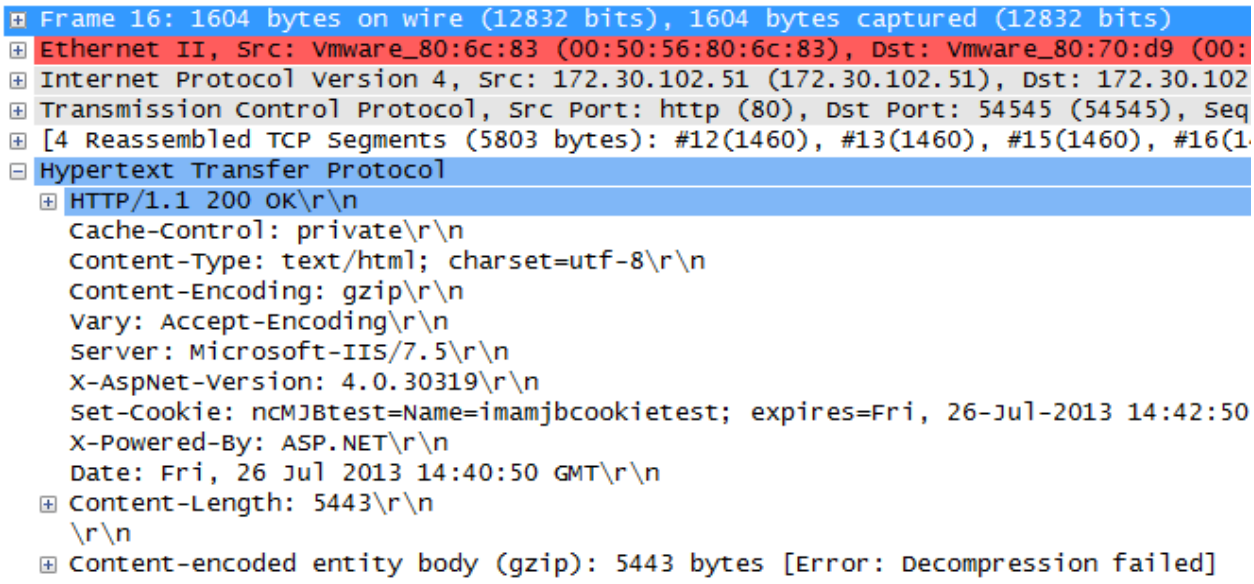
Data hitting F5's inside interface, from IIS (from F5's perspective)

Figure 3 shows the capture of traffic to-from the F5 and IIS server (taken from the perspective of the F5 using the tcpdump CLI command)



(Figure 3)

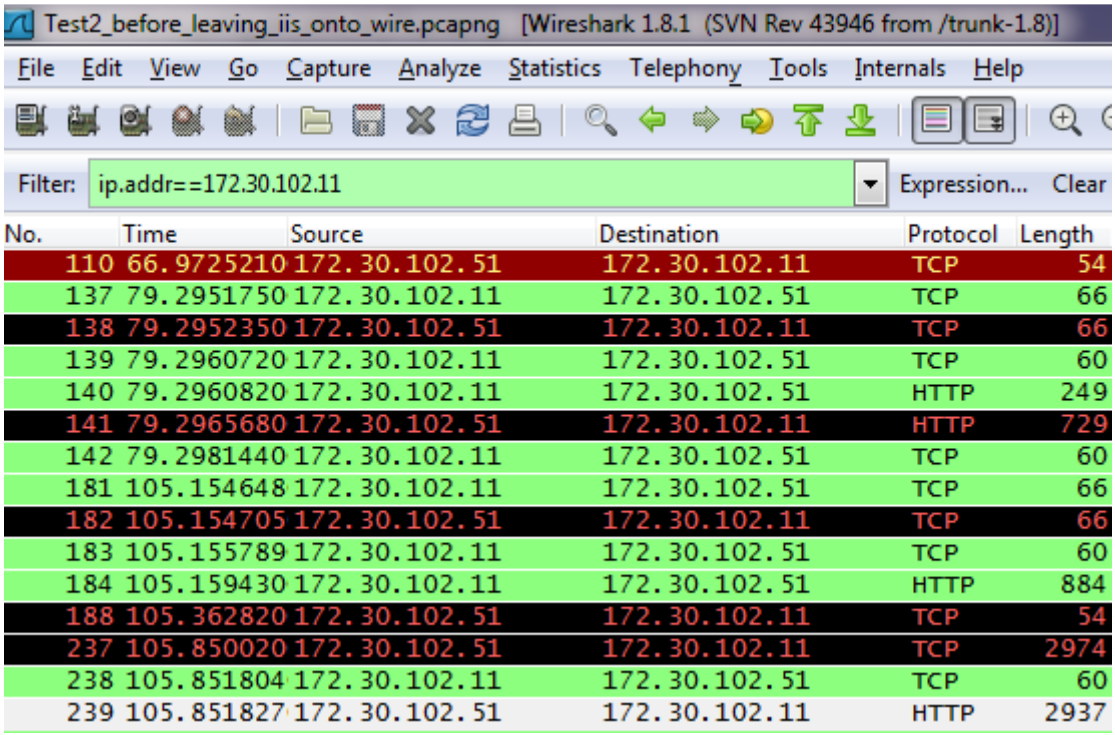
Figure 4 shows that the data has been corrupted. Wireshark is unable to decompress the contents of the gzip-encoded data (Content-encoded entity body (gzip): 5443 bytes [Error: Decompression failed]"



(Figure 4)

TEST 2: F5 and IIS Co-resident w/1000v SPAN capture - Page Cannot Be Displayed

Data Leaving IIS before hitting wire (from IIS's perspective)



No.	Time	Source	Destination	Protocol	Length
110	66.9725210	172.30.102.51	172.30.102.11	TCP	54
137	79.2951750	172.30.102.11	172.30.102.51	TCP	66
138	79.2952350	172.30.102.51	172.30.102.11	TCP	66
139	79.2960720	172.30.102.11	172.30.102.51	TCP	60
140	79.2960820	172.30.102.11	172.30.102.51	HTTP	249
141	79.2965680	172.30.102.51	172.30.102.11	HTTP	729
142	79.2981440	172.30.102.11	172.30.102.51	TCP	60
181	105.154648	172.30.102.11	172.30.102.51	TCP	66
182	105.154705	172.30.102.51	172.30.102.11	TCP	66
183	105.155789	172.30.102.11	172.30.102.51	TCP	60
184	105.159430	172.30.102.11	172.30.102.51	HTTP	884
188	105.362820	172.30.102.51	172.30.102.11	TCP	54
237	105.850020	172.30.102.51	172.30.102.11	TCP	2974
238	105.851804	172.30.102.11	172.30.102.51	TCP	60
239	105.851827	172.30.102.51	172.30.102.11	HTTP	2937

Figure 5

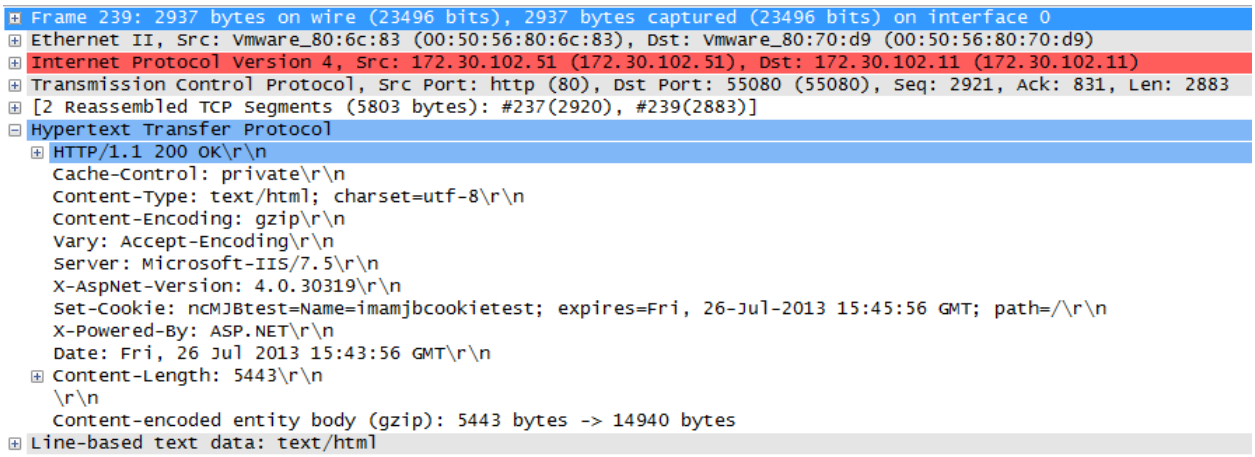
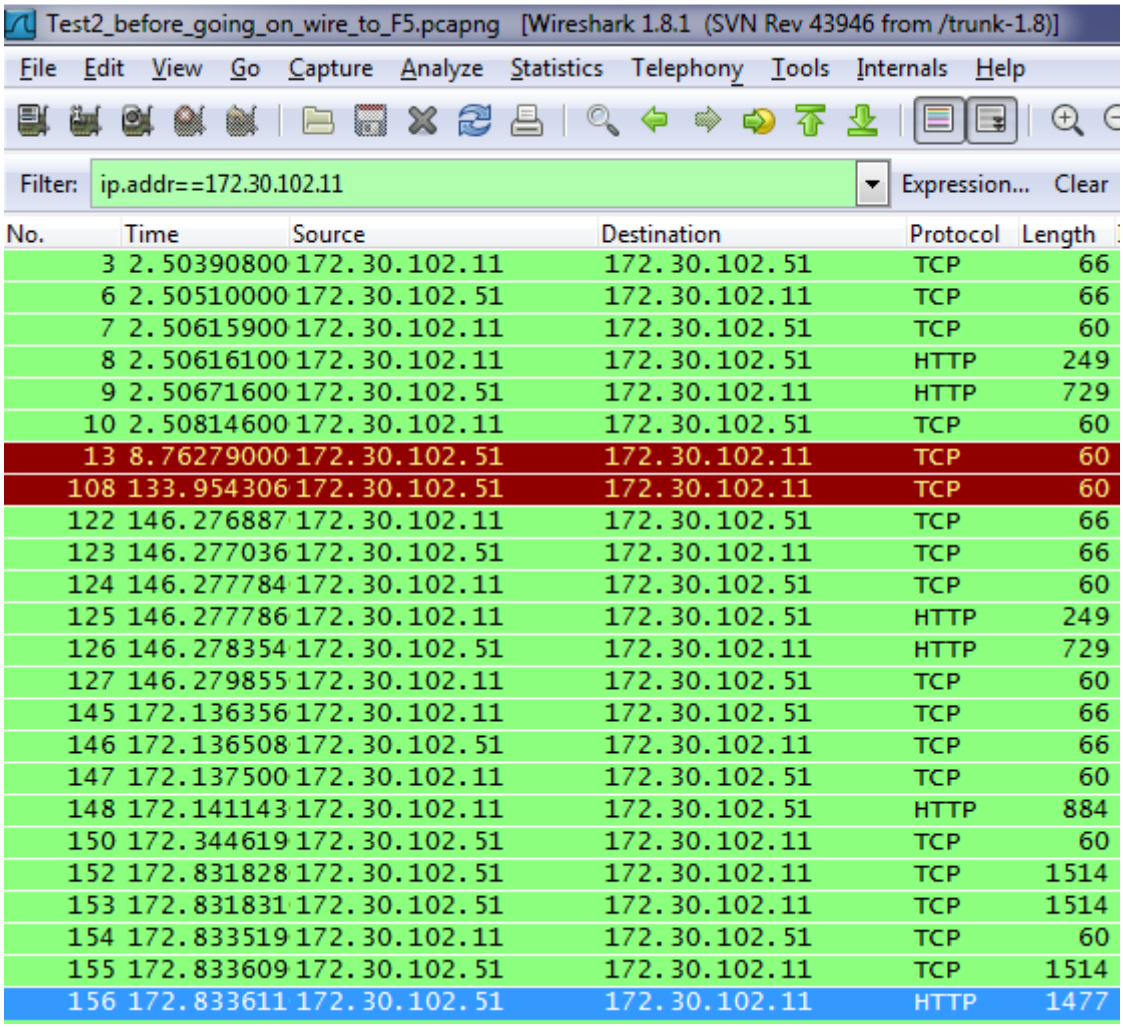

Frame 239: 2937 bytes on wire (23496 bits), 2937 bytes captured (23496 bits) on interface 0
Ethernet II, Src: Vmware_80:6c:83 (00:50:56:80:6c:83), Dst: Vmware_80:70:d9 (00:50:56:80:70:d9)
Internet Protocol Version 4, Src: 172.30.102.51 (172.30.102.51), Dst: 172.30.102.11 (172.30.102.11)
Transmission Control Protocol, Src Port: http (80), Dst Port: 55080 (55080), Seq: 2921, Ack: 831, Len: 2883
[2 Reassembled TCP Segments (5803 bytes): #237(2920), #239(2883)]
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
Cache-Control: private\r\n
Content-Type: text/html; charset=utf-8\r\n
Content-Encoding: gzip\r\n
Vary: Accept-Encoding\r\n
Server: Microsoft-IIS/7.5\r\n
X-AspNet-Version: 4.0.30319\r\n
Set-Cookie: ncMJBtest=Name=imamjbcookietest; expires=Fri, 26-Jul-2013 15:45:56 GMT; path=/\r\n
X-Powered-By: ASP.NET\r\n
Date: Fri, 26 Jul 2013 15:43:56 GMT\r\n
Content-Length: 5443\r\n
\r\n
Content-encoded entity body (gzip): 5443 bytes -> 14940 bytes
Line-based text data: text/html

Figure 6

Data, as seen from the perspective of the 1000v, before leaving "wire" to F5



No.	Time	Source	Destination	Protocol	Length
3	2.50390800	172.30.102.11	172.30.102.51	TCP	66
6	2.50510000	172.30.102.51	172.30.102.11	TCP	66
7	2.50615900	172.30.102.11	172.30.102.51	TCP	60
8	2.50616100	172.30.102.11	172.30.102.51	HTTP	249
9	2.50671600	172.30.102.51	172.30.102.11	HTTP	729
10	2.50814600	172.30.102.11	172.30.102.51	TCP	60
13	8.76279000	172.30.102.51	172.30.102.11	TCP	60
108	133.954306	172.30.102.51	172.30.102.11	TCP	60
122	146.276887	172.30.102.11	172.30.102.51	TCP	66
123	146.277036	172.30.102.51	172.30.102.11	TCP	66
124	146.277784	172.30.102.11	172.30.102.51	TCP	60
125	146.277786	172.30.102.11	172.30.102.51	HTTP	249
126	146.278354	172.30.102.51	172.30.102.11	HTTP	729
127	146.279855	172.30.102.11	172.30.102.51	TCP	60
145	172.136356	172.30.102.11	172.30.102.51	TCP	66
146	172.136508	172.30.102.51	172.30.102.11	TCP	66
147	172.137500	172.30.102.11	172.30.102.51	TCP	60
148	172.141143	172.30.102.11	172.30.102.51	HTTP	884
150	172.344619	172.30.102.51	172.30.102.11	TCP	60
152	172.831828	172.30.102.51	172.30.102.11	TCP	1514
153	172.831831	172.30.102.51	172.30.102.11	TCP	1514
154	172.833519	172.30.102.11	172.30.102.51	TCP	60
155	172.833609	172.30.102.51	172.30.102.11	TCP	1514
156	172.833611	172.30.102.51	172.30.102.11	HTTP	1477

Figure 7

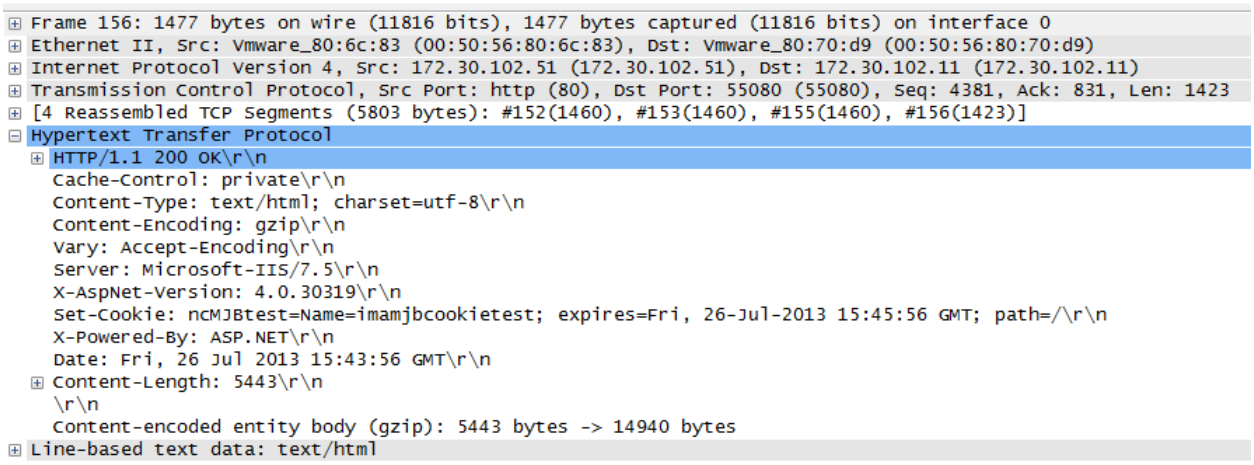
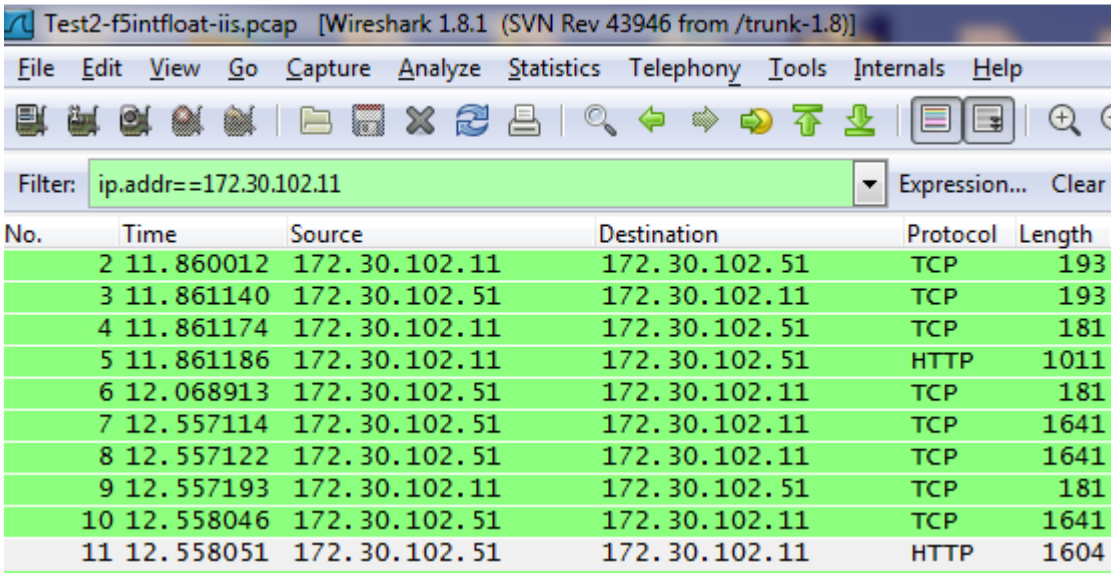

Frame 156: 1477 bytes on wire (11816 bits), 1477 bytes captured (11816 bits) on interface 0
Ethernet II, Src: Vmware_80:6c:83 (00:50:56:80:6c:83), Dst: Vmware_80:70:d9 (00:50:56:80:70:d9)
Internet Protocol Version 4, Src: 172.30.102.51 (172.30.102.51), Dst: 172.30.102.11 (172.30.102.11)
Transmission Control Protocol, Src Port: http (80), Dst Port: 55080 (55080), Seq: 4381, Ack: 831, Len: 1423
[4 Reassembled TCP Segments (5803 bytes): #152(1460), #153(1460), #155(1460), #156(1423)]
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
Cache-Control: private\r\n
Content-Type: text/html; charset=utf-8\r\n
Content-Encoding: gzip\r\n
Vary: Accept-Encoding\r\n
Server: Microsoft-IIS/7.5\r\n
X-AspNet-Version: 4.0.30319\r\n
Set-Cookie: ncMJBtest=Name=imamjbcookietest; expires=Fri, 26-Jul-2013 15:45:56 GMT; path=/\r\n
X-Powered-By: ASP.NET\r\n
Date: Fri, 26 Jul 2013 15:43:56 GMT\r\n
Content-Length: 5443\r\n
\r\n
Content-encoded entity body (gzip): 5443 bytes -> 14940 bytes
Line-based text data: text/html

Figure 8

Data hitting F5's inside interface (from F5's perspective)



No.	Time	Source	Destination	Protocol	Length
2	11.860012	172.30.102.11	172.30.102.51	TCP	193
3	11.861140	172.30.102.51	172.30.102.11	TCP	193
4	11.861174	172.30.102.11	172.30.102.51	TCP	181
5	11.861186	172.30.102.11	172.30.102.51	HTTP	1011
6	12.068913	172.30.102.51	172.30.102.11	TCP	181
7	12.557114	172.30.102.51	172.30.102.11	TCP	1641
8	12.557122	172.30.102.51	172.30.102.11	TCP	1641
9	12.557193	172.30.102.11	172.30.102.51	TCP	181
10	12.558046	172.30.102.51	172.30.102.11	TCP	1641
11	12.558051	172.30.102.51	172.30.102.11	HTTP	1604

Figure 9

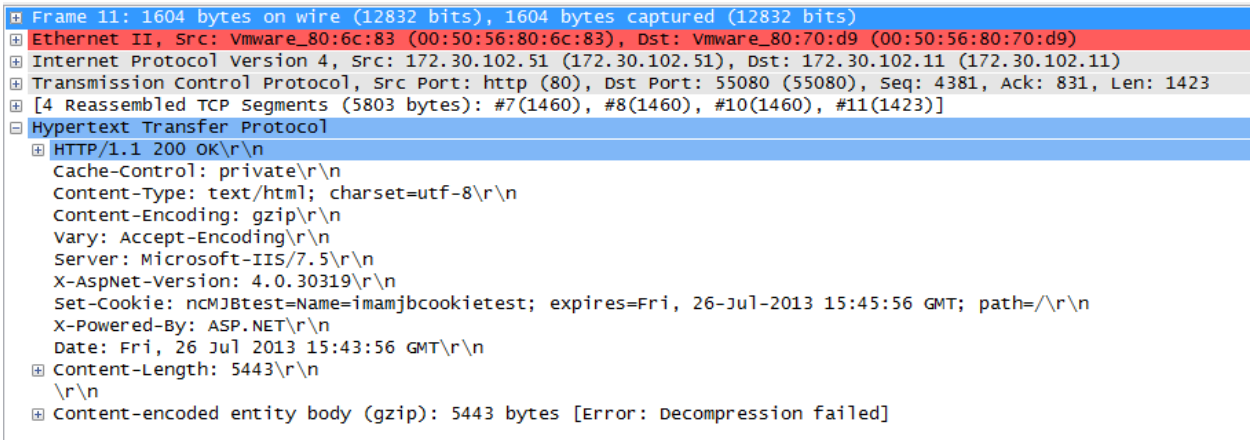

Frame 11: 1604 bytes on wire (12832 bits), 1604 bytes captured (12832 bits)
Ethernet II, Src: Vmware_80:6c:83 (00:50:56:80:6c:83), Dst: Vmware_80:70:d9 (00:50:56:80:70:d9)
Internet Protocol Version 4, Src: 172.30.102.51 (172.30.102.51), Dst: 172.30.102.11 (172.30.102.11)
Transmission Control Protocol, Src Port: http (80), Dst Port: 55080 (55080), Seq: 4381, Ack: 831, Len: 1423
[4 Reassembled TCP Segments (5803 bytes): #7(1460), #8(1460), #10(1460), #11(1423)]
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
Cache-Control: private\r\n
Content-Type: text/html; charset=utf-8\r\n
Content-Encoding: gzip\r\n
Vary: Accept-Encoding\r\n
Server: Microsoft-IIS/7.5\r\n
X-AspNet-Version: 4.0.30319\r\n
Set-Cookie: ncMJBtest=Name=imamjbcookietest; expires=Fri, 26-Jul-2013 15:45:56 GMT; path=/\r\n
X-Powered-By: ASP.NET\r\n
Date: Fri, 26 Jul 2013 15:43:56 GMT\r\n
Content-Length: 5443\r\n
\r\n
Content-encoded entity body (gzip): 5443 bytes [Error: Decompression failed]

Figure 10

TEST 3: F5 and IIS Not Co-resident - Everything Works Fine

Data Leaving IIS before hitting wire (from IIS's perspective)

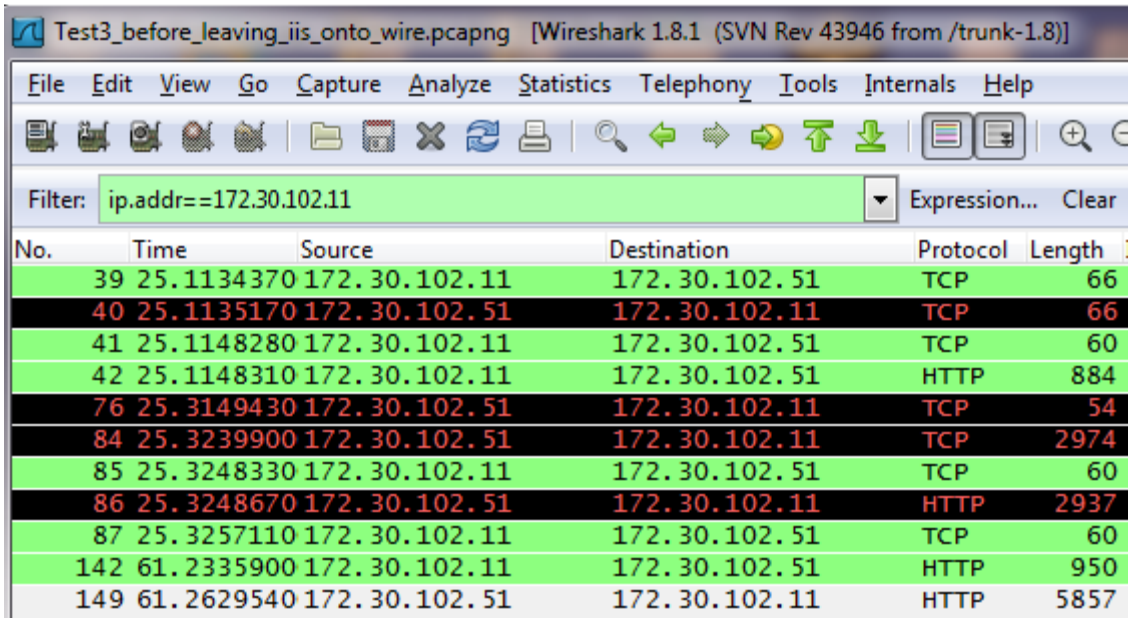


Figure 11

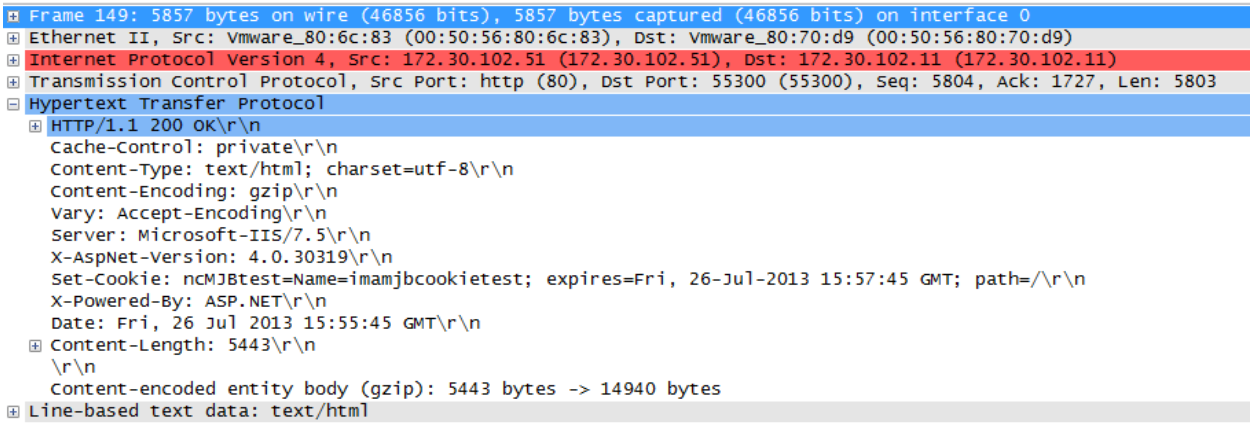

Frame 149: 5857 bytes on wire (46856 bits), 5857 bytes captured (46856 bits) on interface 0
Ethernet II, Src: Vmware_80:6c:83 (00:50:56:80:6c:83), Dst: Vmware_80:70:d9 (00:50:56:80:70:d9)
Internet Protocol Version 4, Src: 172.30.102.51 (172.30.102.51), Dst: 172.30.102.11 (172.30.102.11)
Transmission Control Protocol, Src Port: http (80), Dst Port: 55300 (55300), Seq: 5804, Ack: 1727, Len: 5803
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
Cache-Control: private\r\n
Content-Type: text/html; charset=utf-8\r\n
Content-Encoding: gzip\r\n
Vary: Accept-Encoding\r\n
Server: Microsoft-IIS/7.5\r\n
X-AspNet-Version: 4.0.30319\r\n
Set-Cookie: ncMJBtest=Name=imamjbcookietest; expires=Fri, 26-Jul-2013 15:57:45 GMT; path=/\r\n
X-Powered-By: ASP.NET\r\n
Date: Fri, 26 Jul 2013 15:55:45 GMT\r\n
Content-Length: 5443\r\n
\r\n
Content-encoded entity body (gzip): 5443 bytes -> 14940 bytes
Line-based text data: text/html

Figure 12

Data, as seen from the perspective of the 1000v, before leaving wire to F5

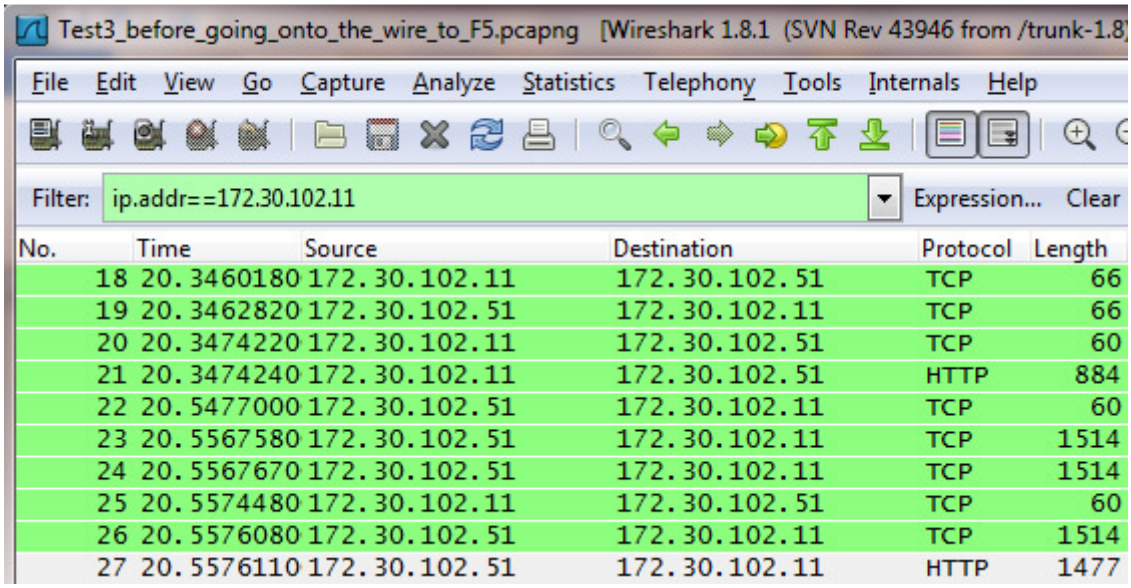


Figure 13

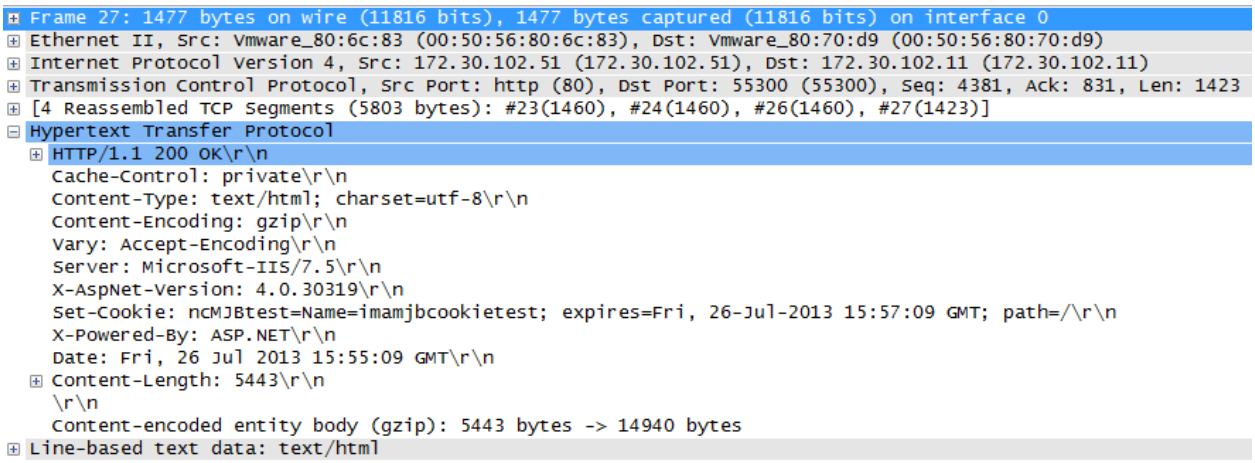

Frame 27: 1477 bytes on wire (11816 bits), 1477 bytes captured (11816 bits) on interface 0
Ethernet II, Src: Vmware_80:6c:83 (00:50:56:80:6c:83), Dst: Vmware_80:70:d9 (00:50:56:80:70:d9)
Internet Protocol Version 4, Src: 172.30.102.51 (172.30.102.51), Dst: 172.30.102.11 (172.30.102.11)
Transmission Control Protocol, Src Port: http (80), Dst Port: 55300 (55300), Seq: 4381, Ack: 831, Len: 1423
[4 Reassembled TCP Segments (5803 bytes): #23(1460), #24(1460), #26(1460), #27(1423)]
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
Cache-Control: private\r\n
Content-Type: text/html; charset=utf-8\r\n
Content-Encoding: gzip\r\n
Vary: Accept-Encoding\r\n
Server: Microsoft-IIS/7.5\r\n
X-AspNet-Version: 4.0.30319\r\n
Set-Cookie: ncMJBtest=Name=imamjbcookietest; expires=Fri, 26-Jul-2013 15:57:09 GMT; path=/\r\n
X-Powered-By: ASP.NET\r\n
Date: Fri, 26 Jul 2013 15:55:09 GMT\r\n
Content-Length: 5443\r\n
\r\n
Content-encoded entity body (gzip): 5443 bytes -> 14940 bytes
Line-based text data: text/html

Figure 14

Data hitting F5's inside interface (from F5's perspective)

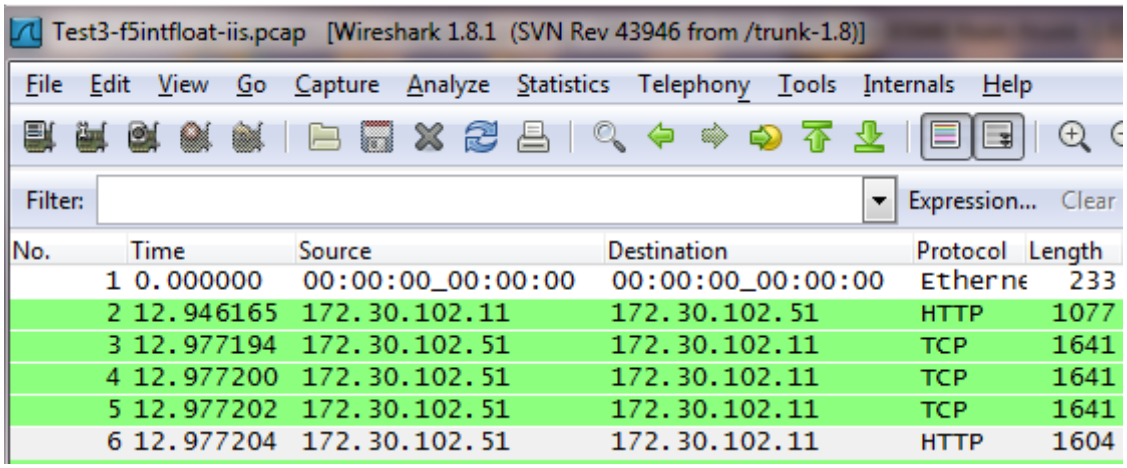


Figure 15

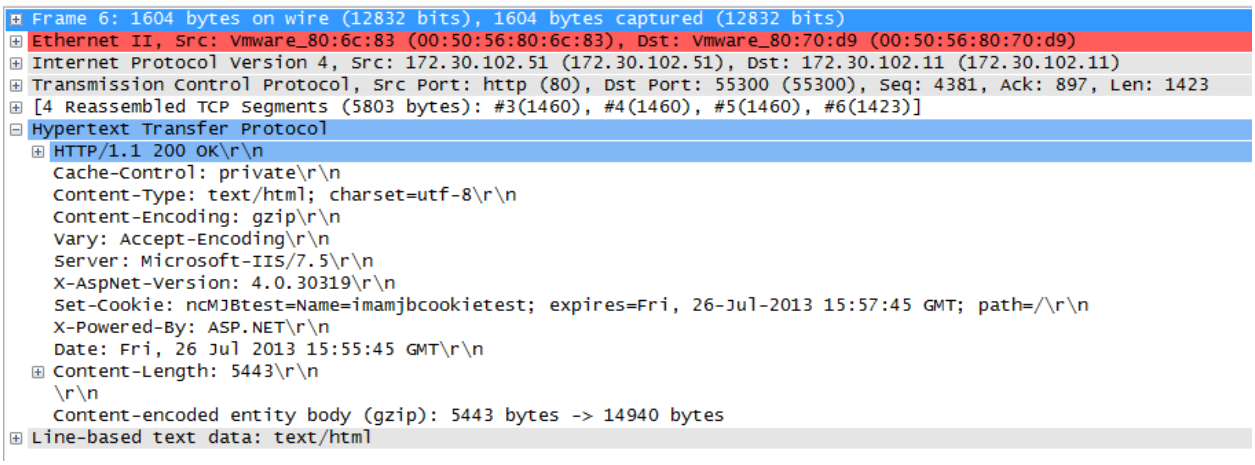

Frame 6: 1604 bytes on wire (12832 bits), 1604 bytes captured (12832 bits)
Ethernet II, Src: Vmware_80:6c:83 (00:50:56:80:6c:83), Dst: Vmware_80:70:d9 (00:50:56:80:70:d9)
Internet Protocol Version 4, Src: 172.30.102.51 (172.30.102.51), Dst: 172.30.102.11 (172.30.102.11)
Transmission Control Protocol, Src Port: http (80), Dst Port: 55300 (55300), Seq: 4381, Ack: 897, Len: 1423
[4 Reassembled TCP Segments (5803 bytes): #3(1460), #4(1460), #5(1460), #6(1423)]
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
Cache-Control: private\r\n
Content-Type: text/html; charset=utf-8\r\n
Content-Encoding: gzip\r\n
Vary: Accept-Encoding\r\n
Server: Microsoft-IIS/7.5\r\n
X-AspNet-Version: 4.0.30319\r\n
Set-Cookie: ncMJBtest=Name=imamjbcookietest; expires=Fri, 26-Jul-2013 15:57:45 GMT; path=/\r\n
X-Powered-By: ASP.NET\r\n
Date: Fri, 26 Jul 2013 15:55:45 GMT\r\n
Content-Length: 5443\r\n
\r\n
Content-encoded entity body (gzip): 5443 bytes -> 14940 bytes
Line-based text data: text/html

Figure 16