

SharkFest '16 Europe

Top 5 False Positives

Wednesday, October 19th, 2016



#sf16eu

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Trace Wrangler | Packet-Foo



Before we start...

- **Packet-Foo Network Analysis blog:**
<https://blog.packet-foo.com>
- **TraceWrangler Website:**
<https://www.tracewrangler.com>
- **My Wireshark color profile:**
<https://goo.gl/hsoIKp>



Agenda

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1. Negative Delta Times
 2. Frame size and checksum problems
 3. Retransmissions and Duplicate ACKs
 4. Zero Window
 5. Retransmission cost



1. Negative Delta Times





1 - Wireshark Demo

| No. | IF | Source | Destination | Protocol | Info | Length | TCP Flags | Delta Time | Relative Time | Absolute Time |
|-----|----|----------------|----------------|----------|---|--------|--------------|------------|---------------|----------------------------|
| 1 | 0 | 81.209.179.69 | 37.201.152.244 | TCP | 80->15668 [SYN, ACK] Seq=0 Ack=1 Win=8192 Len=0 MSS=1460 WS=256 SACK_PERM=1 | 66 |A...S.. | 0.000000 | 0.000000 | 2013-05-22 00:25:37.457203 |
| 2 | 1 | 37.201.152.244 | 81.209.179.69 | TCP | 15668->0 [SYN] Seq=0 Win=8192 Len=0 MSS=1460 WS=4 SACK_PERM=1 | 66 |S... | -0.007976 | -0.007976 | 2013-05-22 00:25:37.449227 |
| 3 | 0 | 81.209.179.69 | 37.201.152.244 | HTTP | [TCP ACKed unseen segment] HTTP/1.1 200 OK (text/html) | 347 |AP... | 0.056228 | 0.048252 | 2013-05-22 00:25:37.505455 |
| 4 | 1 | 37.201.152.244 | 81.209.179.69 | TCP | 15668->0 [ACK] Seq=1 Ack=1 Win=65700 Len=0 | 60 |A.... | -0.047916 | 0.000336 | 2013-05-22 00:25:37.457539 |
| 5 | 1 | 37.201.152.244 | 81.209.179.69 | HTTP | GET / HTTP/1.1 | 453 |AP... | 0.037275 | 0.037611 | 2013-05-22 00:25:37.494814 |
| 6 | 0 | 81.209.179.69 | 37.201.152.244 | HTTP | [TCP ACKed unseen segment] HTTP/1.1 404 Not Found (text/html) | 463 |AP... | 0.178705 | 0.216316 | 2013-05-22 00:25:37.673519 |
| 7 | 1 | 37.201.152.244 | 81.209.179.69 | HTTP | GET /favicon.ico HTTP/1.1 | 404 |AP... | -0.007980 | 0.208336 | 2013-05-22 00:25:37.665539 |
| 8 | 1 | 37.201.152.244 | 81.209.179.69 | TCP | 15668->0 [ACK] Seq=750 Ack=703 Win=64996 Len=0 | 60 |A.... | 0.209000 | 0.417336 | 2013-05-22 00:25:37.874539 |
| 9 | 0 | 81.209.179.69 | 37.201.152.244 | TCP | 80->15668 [FIN, ACK] Seq=703 Ack=750 Win=130816 Len=0 | 60 |A...F | 5.307168 | 5.724504 | 2013-05-22 00:25:43.181707 |
| 10 | 1 | 37.201.152.244 | 81.209.179.69 | TCP | 15668->0 [ACK] Seq=750 Ack=704 Win=64996 Len=0 | 60 |A.... | 0.000303 | 5.724807 | 2013-05-22 00:25:43.182010 |
| 11 | 1 | 37.201.152.244 | 81.209.179.69 | TCP | 15668->0 [FIN, ACK] Seq=750 Ack=704 Win=64996 Len=0 | 60 |A...F | 0.000001 | 5.724808 | 2013-05-22 00:25:43.182011 |
| 12 | 0 | 81.209.179.69 | 37.201.152.244 | TCP | 80->15668 [ACK] Seq=704 Ack=751 Win=130816 Len=0 | 60 |A.... | 0.011008 | 5.735816 | 2013-05-22 00:25:43.193019 |



2. Frame size & checksum problems





2 - Wireshark Demo

| No. | IF | Source | Destination | Protocol | Info | Length | TCP Flags |
|-----|----|-----------------|-----------------|----------|---|--------|----------------|
| 1 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [SYN] Seq=0 Win=8192 [TCP CHECKSUM INCORRECT] Len=0 MSS=1460 WS=4 SA_ | 66 |S..S.. |
| 2 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [SYN, ACK] Seq=0 Ack=1 Win=65535 Len=0 MSS=1460 WS=512 SACK_PERM=1 | 66 |A..S.. |
| 3 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [ACK] Seq=1 Ack=1 Win=65700 [TCP CHECKSUM INCORRECT] Len=0 | 54 |A..S.. |
| 4 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [PSH, ACK] Seq=1 Ack=1 Win=65536 Len=132 | 186 |AP...AP.. |
| 5 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=1 Ack=133 Win=65568 [TCP CHECKSUM INCORRECT] Len=55 | 109 |AP...AP.. |
| 6 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [PSH, ACK] Seq=133 Ack=56 Win=65536 Len=1083 | 1137 |AP...AP.. |
| 7 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=56 Ack=1216 Win=64484 [TCP CHECKSUM INCORRECT] Len=326 | 380 |AP...AP.. |
| 8 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [PSH, ACK] Seq=1216 Ack=382 Win=65536 Len=59 | 113 |AP...AP.. |
| 9 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=382 Ack=1275 Win=64424 [TCP CHECKSUM INCORRECT] Len=1... | 155 |AP...AP.. |
| 10 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1275 Ack=483 Win=65536 Len=0 | 60 |A...A.. |
| 11 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=483 Ack=1275 Win=64424 [TCP CHECKSUM INCORRECT] Len=53 | 107 |AP...AP.. |
| 12 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [PSH, ACK] Seq=1275 Ack=536 Win=65536 Len=69 | 123 |AP...AP.. |
| 13 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=536 Ack=1344 Win=64356 [TCP CHECKSUM INCORRECT] Len=2... | 318 |AP...AP.. |
| 14 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1344 ACK=800 Win=65536 Len=0 | 60 |A...A.. |
| 15 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=800 Ack=1344 Win=64356 [TCP CHECKSUM INCORRECT] Len=9... | 990 |AP...AP.. |
| 16 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1344 Ack=1736 Win=64512 Len=0 | 60 |A...A.. |
| 17 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [PSH, ACK] Seq=1344 Ack=1736 Win=65536 Len=264 | 318 |AP...AP.. |
| 18 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=1736 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=... | 318 |AP...AP.. |
| 19 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [PSH, ACK] Seq=2000 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=... | 4434 |AP...AP.. |
| 20 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=4920 Win=62464 Len=0 | 60 |A...A.. |
| 21 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [ACK] Seq=6388 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=5840 | 5894 |A...A.. |
| 22 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=10760 Win=56832 Len=0 | 60 |A...A.. |
| 23 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [ACK] Seq=12220 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=11680 | 11734 |A...A.. |
| 24 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=15140 Win=52224 Len=0 | 60 |A...A.. |
| 25 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [ACK] Seq=23900 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=8760 | 8814 |A...A.. |
| 26 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=20980 Win=46592 Len=0 | 60 |A...A.. |
| 27 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=23900 Win=43520 Len=0 | 60 |A...A.. |
| 28 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [ACK] Seq=32660 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=17520 | 17574 |A...A.. |
| 29 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=26820 Win=40448 Len=0 | 60 |A...A.. |
| 30 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=32660 Win=34816 Len=0 | 60 |A...A.. |
| 31 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [ACK] Seq=50180 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=16060 | 16114 |A...A.. |
| 32 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=37040 Win=30208 Len=0 | 60 |A...A.. |
| 33 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=42880 Win=24576 Len=0 | 60 |A...A.. |
| 34 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=48720 Win=18944 Len=0 | 60 |A...A.. |
| 35 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=54560 Win=12800 Len=0 | 60 |A...A.. |
| 36 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=60400 Win=7168 Len=0 | 60 |A...A.. |
| 37 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 ACK=66240 Win=1024 Len=0 | 60 |A...A.. |
| 38 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | [TCP Window Update] 902+53244 [ACK] Seq=1608 Ack=66240 Win=65536 Len=0 | 60 |A...A.. |
| 39 | 0 | 192.168.124.100 | 192.168.124.2 | TCP | 53244+902 [ACK] Seq=66240 Ack=1608 Win=65700 [TCP CHECKSUM INCORRECT] Len=64240 | 64294 |A...A.. |
| 40 | 0 | 192.168.124.2 | 192.168.124.100 | TCP | 902+53244 [ACK] Seq=1608 Ack=73540 Win=59392 Len=0 | 60 |A...A.. |



False Positive 2 explained

The offloading effect





3. Retransmissions & Duplicate ACKs





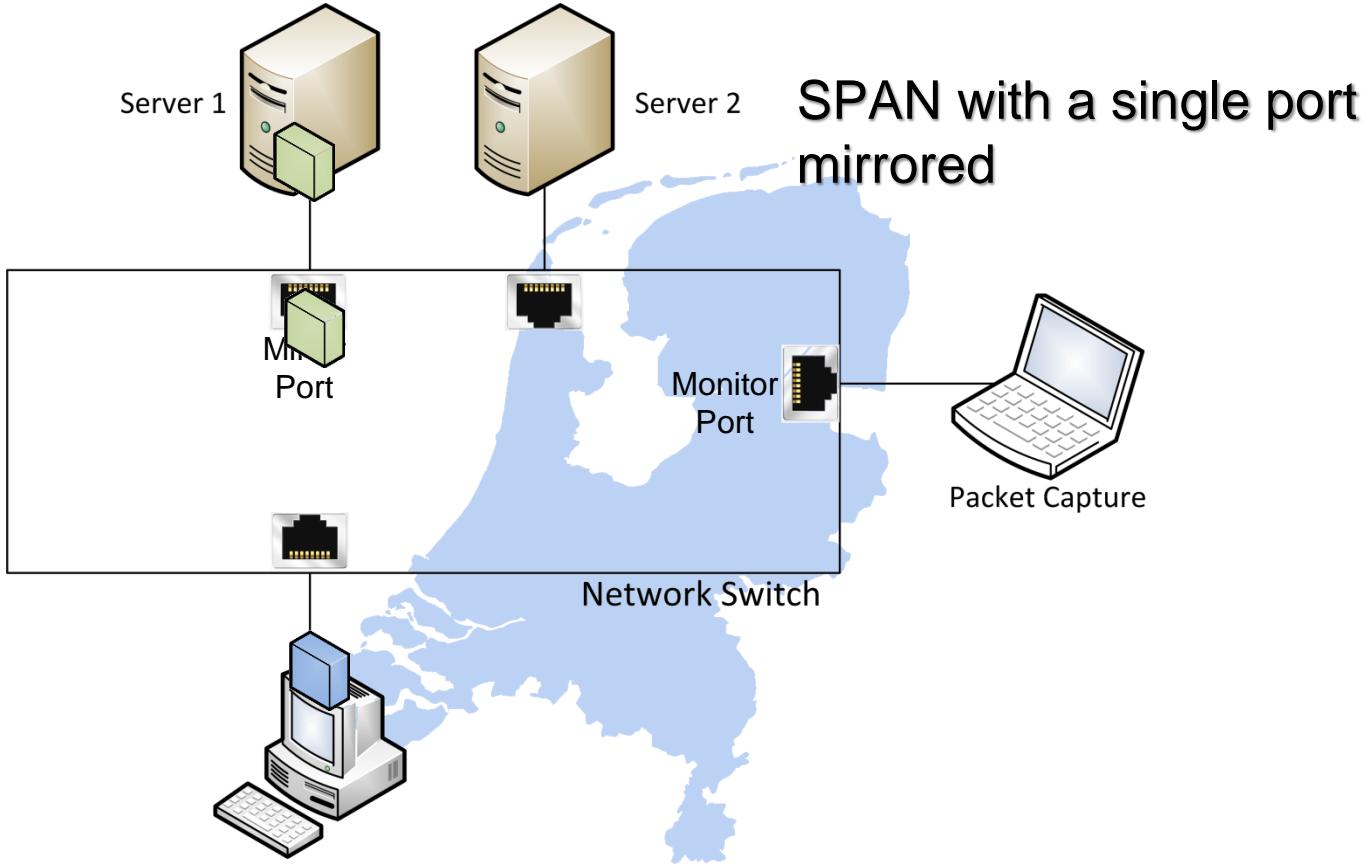
3 – Wireshark Demo

| No. | IF | Source | Destination | Protocol | Info | Length | TCP Flags | Delta Time |
|-----|----|-------------|-------------|----------|--|--------|------------|------------|
| 1 | 0 | 192.168.1.1 | 10.0.0.1 | SMB | Read AndX Request, FID: 0x402b, 16384 bytes at offset 66441216 | 121 |AP... | 0.000000 |
| 2 | 0 | 192.168.1.1 | 10.0.0.1 | TCP | [TCP Retransmission] 1145>445 [PSH, ACK] Seq=1 Ack=1 Win=64512 Len=63 | 121 |AP... | 0.000013 |
| 3 | 0 | 10.0.0.1 | 192.168.1.1 | NBSS | Session message[Packet size limited during capture] | 1518 |A.... | 0.000201 |
| 4 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [TCP Retransmission] 445>1145 [ACK] Seq=1 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000013 |
| 5 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=1461 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000013 |
| 6 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=2921 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000014 |
| 7 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Out-Of-Order] 445>1145 [ACK] Seq=1461 Ack=64 Win: | 1518 |A.... | 0.000012 |
| 8 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=4381 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000013 |
| 9 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Out-Of-Order] 445>1145 [ACK] Seq=2921 Ack=64 Win: | 1518 |A.... | 0.000013 |
| 10 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=5841 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000012 |
| 11 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Out-Of-Order] 445>1145 [ACK] Seq=4381 Ack=64 Win: | 1518 |A.... | 0.000012 |
| 12 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Retransmission] 445>1145 [ACK] Seq=5841 Ack=64 Wj | 1518 |A.... | 0.000014 |
| 13 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=7301 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000012 |
| 14 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Retransmission] 445>1145 [ACK] Seq=7301 Ack=64 Wj | 1518 |A.... | 0.000012 |
| 15 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=8761 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000013 |
| 16 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Retransmission] 445>1145 [ACK] Seq=8761 Ack=64 Wi | 1518 |A.... | 0.000012 |
| 17 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=10221 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000012 |
| 18 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Retransmission] 445>1145 [ACK] Seq=10221 Ack=64 Wj | 1518 |A.... | 0.000013 |
| 19 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=11681 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000014 |
| 20 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] 445>1145 [ACK] Seq=13141 Ack=64 Win=64177 Len=1460 | 1518 |A.... | 0.000017 |
| 21 | 0 | 10.0.0.1 | 192.168.1.1 | TCP | [Continuation to #3] [TCP Out-Of-Order] 445>1145 [ACK] Seq=11681 Ack=64 Wj | 1518 |A.... | 0.000017 |



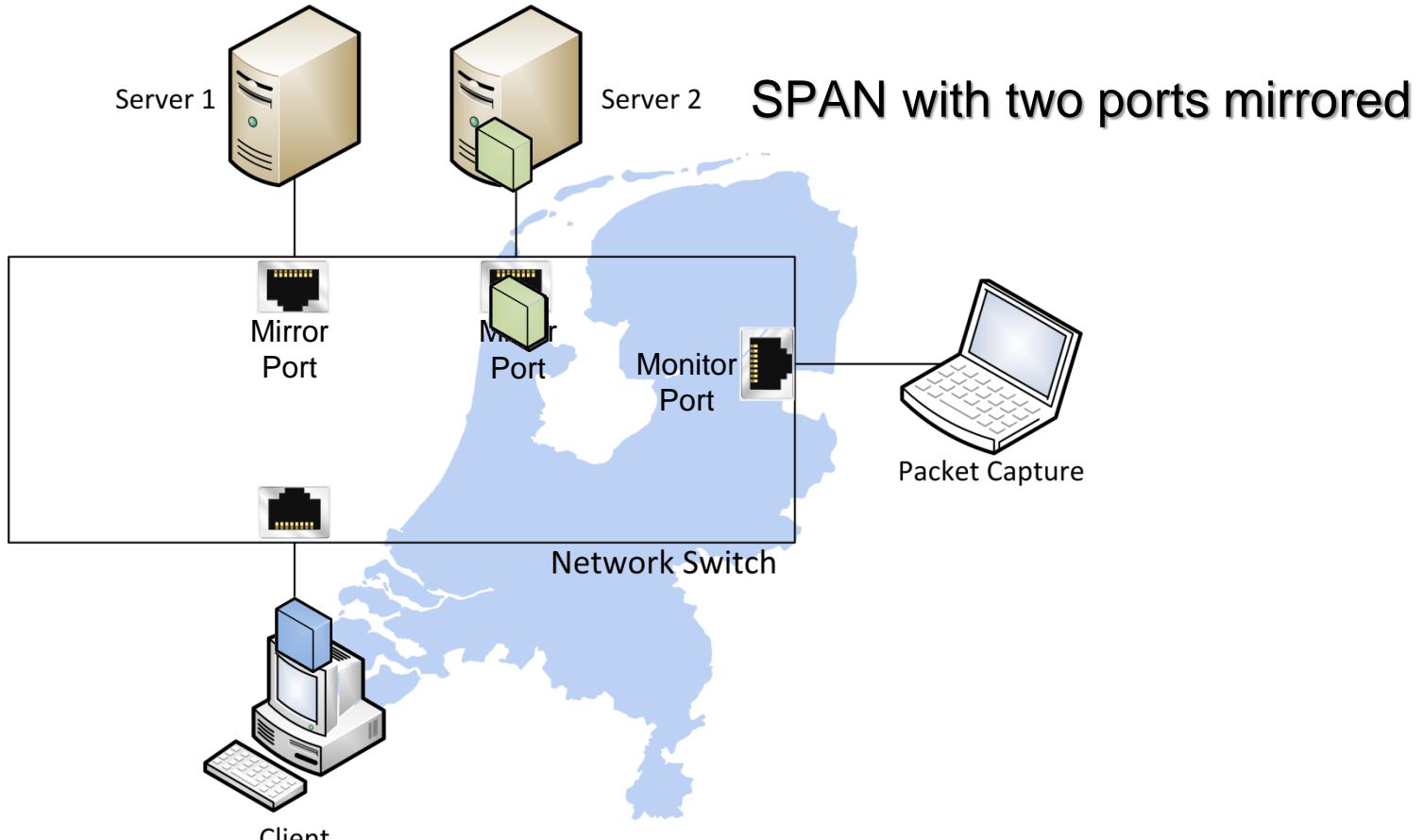


False Positive 3 explained (1/3)



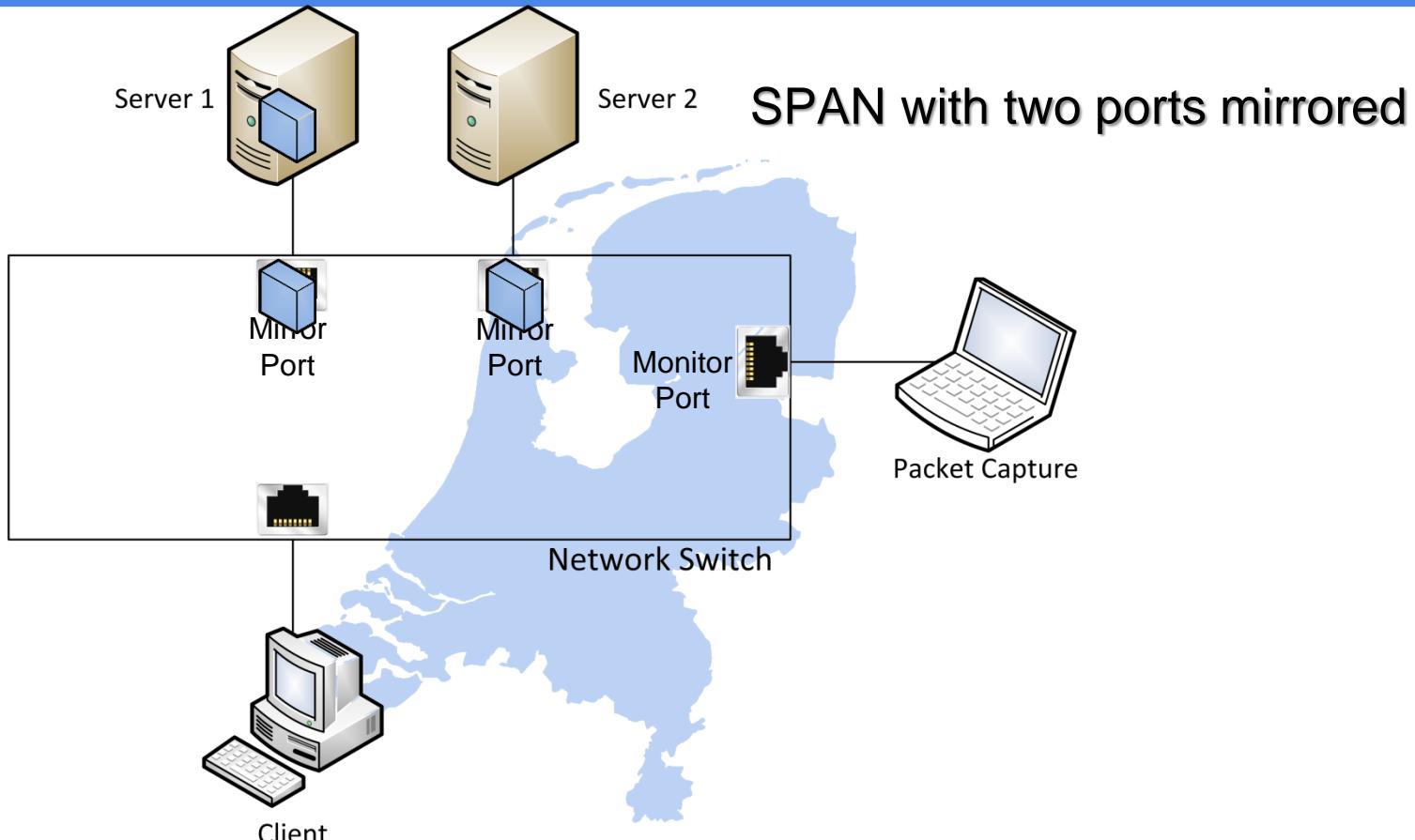


False Positive 3 explained (2/3)





False Positive 3 explained (3/3)





4. Zero Window





4 – Wireshark Demo

| No. | IF | Source | Destination | Protocol | Info | Length | TCP Flags | Delta Time | Relative Time |
|-----|----|--------------|--------------|----------|---|--------|-------------|------------|---------------|
| 1 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | 1033→9100 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 SACK_PERM=1 | 62 |S.. | 0.000000 | 0.000000 |
| 2 | 0 | 10.0.0.1 | 192.168.0.10 | TCP | 9100→1033 [SYN, ACK] Seq=0 Ack=1 Win=1460 Len=0 MSS=1460 | 60 |A..S.. | 0.000122 | 0.000122 |
| 3 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | 1033→9100 [ACK] Seq=1 Ack=1 Win=65535 Len=0 | 60 |A.... | 0.000005 | 0.000127 |
| 4 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | [TCP Window Full] 1033→9100 [ACK] Seq=1 Ack=1 Win=65535 Len=1460 | 1514 |A.... | 0.000978 | 0.001105 |
| 5 | 0 | 10.0.0.1 | 192.168.0.10 | TCP | 9100→1033 [ACK] Seq=1 Ack=1461 Win=1460 Len=0 | 60 |A.... | 0.000327 | 0.001432 |
| 6 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | [TCP Window Full] 1033→9100 [ACK] Seq=1461 Ack=1 Win=65535 Len=1460 | 1514 |A.... | 0.000204 | 0.001636 |
| 7 | 0 | 10.0.0.1 | 192.168.0.10 | TCP | [TCP ZeroWindow] 9100→1033 [ACK] Seq=1 Ack=2921 Win=0 Len=0 | 60 |A.... | 0.196925 | 0.198561 |
| 8 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | [TCP ZeroWindowProbe] 1033→9100 [ACK] Seq=2921 Ack=1 Win=65535 Len=1 | 60 |A.... | 2.288995 | 2.487556 |
| 9 | 0 | 10.0.0.1 | 192.168.0.10 | TCP | [TCP ZeroWindowProbeAck] [TCP ZeroWindow] 9100→1033 [ACK] Seq=1 Ack=2921 Wi | 60 |A.... | 0.132047 | 2.619603 |
| 10 | 0 | 10.0.0.1 | 192.168.0.10 | TCP | [TCP Window Update] 9100→1033 [ACK] Seq=1 Ack=2921 Win=14600 Len=0 | 60 |A.... | 0.302639 | 2.922242 |
| 11 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | 1033→9100 [ACK] Seq=2921 Ack=1 Win=65535 Len=1460 | 1514 |A.... | 0.000198 | 2.922440 |
| 12 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | 1033→9100 [ACK] Seq=4381 Ack=1 Win=65535 Len=1460 | 1514 |A.... | 0.000009 | 2.922449 |
| 13 | 0 | 10.0.0.1 | 192.168.0.10 | TCP | 9100→1033 [ACK] Seq=1 Ack=5841 Win=16060 Len=0 | 60 |A.... | 0.001059 | 2.923508 |
| 14 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | 1033→9100 [ACK] Seq=5841 Ack=1 Win=65535 Len=1460 | 1514 |A.... | 0.000203 | 2.923711 |
| 15 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | 1033→9100 [ACK] Seq=7301 Ack=1 Win=65535 Len=1460 | 1514 |A.... | 0.000007 | 2.923718 |
| 16 | 0 | 192.168.0.10 | 10.0.0.1 | TCP | 1033→9100 [ACK] Seq=8761 Ack=1 Win=65535 Len=1460 | 1514 |A.... | 0.000006 | 2.923724 |
| 17 | 0 | 10.0.0.1 | 192.168.0.10 | TCP | 9100→1033 [ACK] Seq=1 Ack=10221 Win=16060 Len=0 | 60 |A.... | 0.000681 | 2.924405 |





5. Retransmission cost





5 – Wireshark Demo

| No. | IF | Source | Destination | Protocol | Info | Length | TCP Flags | Delta Time | Relative Time |
|-----|----|---------------|---------------|----------|--|--------|-------------|------------|---------------|
| 1 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | 59707>80 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 WS=2 TSval=751518334 TSecr=0 | 78 |S..S.. | 0.000000 | 0.000000 |
| 2 | 0 | 93.184.220.20 | 192.168.1.44 | TCP | 80>59707 [SYN, ACK] Seq=0 Ack=1 Win=14600 Len=0 MSS=1452 SACK_PERM=1 WS=64 | 66 |A..S.. | 0.058012 | 0.058012 |
| 3 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | 59707>80 [ACK] Seq=1 Ack=1 Win=66792 Len=0 | 54 |A.... | 0.000157 | 0.058169 |
| 4 | 0 | 192.168.1.44 | 93.184.220.20 | HTTP | GET /sample128k.html?r=0.77097258111462 HTTP/1.1 | 410 |AP.... | 0.001215 | 0.059384 |
| 5 | 0 | 93.184.220.20 | 192.168.1.44 | TCP | 80>59707 [ACK] Seq=1 Ack=357 Win=15680 Len=0 | 60 |A.... | 0.059001 | 0.118385 |
| 6 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | HTTP/1.1 200 OK (text/html) | 1506 |A.... | 0.002899 | 0.121284 |
| 7 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001117 | 0.122401 |
| 8 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | 59707>80 [ACK] Seq=357 Ack=2905 Win=65340 Len=0 | 54 |A.... | 0.000181 | 0.122502 |
| 9 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | [TCP Previous segment not captured] Continuation | 1506 |A.... | 0.004806 | 0.127308 |
| 10 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Window Update] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000058 | 0.127366 |
| 11 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001669 | 0.129035 |
| 12 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#1] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000042 | 0.129077 |
| 13 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.002409 | 0.131486 |
| 14 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#2] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000047 | 0.131533 |
| 15 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001550 | 0.133083 |
| 16 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#3] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000040 | 0.133123 |
| 17 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001110 | 0.134233 |
| 18 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#4] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000043 | 0.134276 |
| 19 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.002494 | 0.136770 |
| 20 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#5] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000040 | 0.136810 |
| 21 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001617 | 0.138427 |
| 22 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#6] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000043 | 0.138470 |
| 23 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.000578 | 0.179048 |
| 24 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#7] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000068 | 0.179116 |
| 25 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001521 | 0.180637 |
| 26 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#8] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000035 | 0.180672 |
| 27 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.000791 | 0.181463 |
| 28 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#9] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000034 | 0.181497 |
| 29 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.002702 | 0.184199 |
| 30 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#10] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000032 | 0.184231 |
| 31 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001528 | 0.185759 |
| 32 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | [TCP Dup ACK 8#11] 59707>80 [ACK] Seq=357 Ack=2905 Win=66792 Len=0 SLE=4357 | 66 |A.... | 0.000030 | 0.185789 |
| 33 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | [TCP Fast Retransmission] Continuation | 1506 |A.... | 0.002328 | 0.188117 |
| 34 | 0 | 192.168.1.44 | 93.184.220.20 | TCP | 59707>80 [ACK] Seq=357 Ack=21781 Win=47916 Len=0 | 54 |A.... | 0.000039 | 0.188156 |
| 35 | 0 | 93.184.220.20 | 192.168.1.44 | HTTP | Continuation | 1506 |A.... | 0.001600 | 0.188054 |



A close-up, low-angle shot of a shark's mouth. The shark's skin is textured and mottled with dark spots. Its mouth is wide open, revealing a set of sharp, white, conical teeth. The background is a deep, dark blue.

Q&A

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