	Α	В	С	D	E	F	G
1		E PIPELINE	C	Ь	L	'	Ü
2	RTT NR	Tx Client	cwnd Client	Client (Browser)	Server	cwnd Server	Tx Server
3	1	MOReq:S[0]-S0[799], MOReq:S1[800-S1[1199]	2 MSS	HTML-Request (2 Segmente)	HTML-Response(2 Segmente)	2 MSS	MO:S0[0]-S1[799], MO:S1[800]-S2[1599]
4	2	2x ack	2 MSS	Ack dass 2 Segmente angekommen	CWND erhöhen, HTML- Response(1 Segment)	4 MSS	MO:S1[1600]-S2[1999]
5	3	1x ack	4 MSS	ack dass 1 Segment angekommen	erhöhe cwnd	5 MSS	
6	4	I01Req:S0[0]-S0[799], I01Req:S1[800-S1[1599]	5 MSS	Request Bild 1 (2 Segmente)	Sende Bild 1 komplett(4Segmente)	5 MSS	101:S0[0]-S0[799], 101:S1[800]-S1[1599], 101:S2[1600]-S2[2399], 101:S3[2400]-S3[3199]
7	5	4x ack	5 MSS		erhöhe cwnd	9 MSS	
8	6	I02Req:S0[0]-S0[799], I02Req:S1[800-S1[1599], I02Req:S1[1600-S1[2399], I02Req:S1[2400-S1[3199]	9 MSS	Request Bild 2 (4 Segmente)	Sende Bild 2 komplett(1 Segment)	9 MSS	102:S0[0]-S0[799],
9	7	1x ack	9 MSS		erhöhe cwnd	10 MSS	
10	8	103Req:S0[0]-S0[799], 103Req:S1[800-S1[1599], 103Req:S1[1600-S1[2399], 103Req:S1[2400-S1[3199], 103Req:S1[3200-S1[3999], 103Req:S1[4000-S1[4799]	10 MSS	Request Bild 3 (6 Segmente)	Sende Bild 3komplett (10 Segmente)	10 MSS	103:S0[0]-S0[799], 103:S1[800]-S1[1599], 103:S2[1600]-S2[2399], 103:S3[2400]-S3[3199], 103:S4[2200]-S4[3999], 103:S5[4000]-S5[4799], 103:S6[4800]-S6[599], 103:S7[5600]-S7[6399], 103:S8[6400]-S8[7199], 103:S9[7200]-S9[7999],
11	9	10x ack	10 MSS		erhöhe cwnd	20 MSS	
12	10	104Req:S0[0]-S0[799]	20 MSS	Request Bild 4 (1 Segment)	Sende Bild 4 (20 segmente)	20 MSS	104:S0-S799, 104:S00-S1599, 104:S1600-S2399, 104:S2400-S3199, 104:S2200-S3999, 104:S4200-S4799, 104:S4600-S5599, 104:S6600-S6399, 104:S6600-S6399, 104:S7200-S7999, 104:S8800-S9599, 104:S8800-S10399, 104:S12000-S11999, 104:S12000-S12799, 104:S12000-S12799, 104:S12000-S12799, 104:S12000-S12799, 104:S12000-S12799, 104:S12000-S12799, 104:S12000-S12799, 104:S12000-S12799, 104:S12000-S12799, 104:S12500-S12799, 104:S12500-S12799, 104:S12500-S12799,
13	11	20x ACK	20 MSS	ACK für Bild 4-Teil 1	erhöhe cwnd, Sende Bild4 (18 Segmente)	40 MSS	104:S16000-S16799, 104:S16800-S17599, 104:S17600-S18399, 104:S12400-S19199, 104:S120000-S20799, 104:S22000-S20799, 104:S22400-S23199, 104:S22400-S23999, 104:S22400-S23999, 104:S24000-S24799, 104:S24000-S27999, 104:S25599, 104:S25600-S26399, 104:S25600-S26399, 104:S26400-S27999, 104:S27200-S27999, 104:S28000-S28799, 104:S29800-S28799, 104:S29600-S30000,

_	Α	В	С	D	E	F	G
14	12	18x ACK	40 MSS		erhöhe cwnd	58 MSS	
15	13	105Req:S0[0]-S0[799], 105Req:S1[800-S1[1200]	58 MSS	Request Bild 5 (2 Segmenet)	Sende Bild 5 komplett (15 segmente)	58 MSS	105:S0-S799, 105:S800-S1599, 105:S2400-S2399, 105:S2400-S3199, 105:S2400-S399, 105:S4000-S4799, 105:S4800-S5599, 105:S600-S6399, 105:S600-S7199, 105:S8000-S8799, 105:S8000-S8799, 105:S8000-S10399, 105:S10400-S11199, 105:S11400-S11199,
16	14	15x ACK	58 MSS		erhöhe cwnd	73 MSS	
17 18							
19 20		DIDELLINE					
21 22	HTTP MIT I RTT NR	Tx Client	cwnd Client	Client (Browser)	Server	cwnd Server	Tx Server
23	1	MOReq:S[0]-S0[799], MOReq:S1[800-S1[1199]	2 MSS	HTML-Request (2 Segmente) Ack dass 2	HTML-Response(2 Segmente)	2 MSS	MO:S0[0]-S1[799], MO:S1[800]-S2[1599]
24	2	2x ack	2 MSS	Segmente angekommen	CWND erhöhen, HTML- Response(1 Segment)	4 MSS	MO:S1[1600]-S2[1999]
25	3	1x ack, I01Req:S0[0]-S0[799], I01Req:S1[800-S1[1599]	4 MSS	ack dass 1 Segment angekommen, Request Bild 1 (2 Segmente)	erhöhe cwnd, Sende Bild 1 komplett(4Segmente)	5 MSS	01:S0[0]-S0[799], 01:S1[800]-S1[1599], 01:S2[1600]-S2[2399], 01:S3[2400]-S3[3199]
26	4	4x ack, 102Req:S0[0]-S0[799], 102Req:S1[800-S1[1599], 102Req:S1[1600-S1[2399], 102Req:S1[2400-S1[3199]	5 MSS	Request Bild 2 (4 Segmente)	erhöhe cwnd, Sende Bild 2 komplett(1 Segment)	9 MSS	102:S0[0]-S0[799],
27		1x ack, 103Req:S0[0]-S0[799], 103Req:S1[800-S1[1599], 103Req:S1[1600-S1[2399], 103Req:S1[2400-S1[3199], 103Req:S1[3200-S1[3999], 103Req:S1[4000-S1[4799]	9 MSS	Request Bild 3 (6 Segmente)	erhöhe cwnd, Sende Bild 3komplett (10 Segmente)	10 MSS	103:S0[0]-S0[799], 103:S2[800]-S1[1599], 103:S2[800]-S1[2399], 103:S2[300]-S4[3199], 103:S4[3200]-S4[3999], 103:S6[4000]-S6[4799], 103:S6[4800]-S6[5599], 103:S6[6400]-S8[7199], 103:S6[6400]-S8[7199], 103:S9[7200]-S9[7999],

	۸	B	С	D	E	F	G
	Α	В		D	E	Г	G I04:S0-S799,
28	6	10x ack, 104Req:S0[0]-S0[799]	10 MSS	Request Bild 4 (1 Segment)	erhöhe cwnd, Sende Bild 4 (20 segmente)	20 MSS	104:S800-S1599, 104:S1600-S2399, 104:S2400-S3199, 104:S2400-S3999, 104:S4000-S4799, 104:S4800-S5599, 104:S600-S6399, 104:S600-S6399, 104:S600-S6799, 104:S8000-S8799, 104:S8000-S8799, 104:S800-S10399, 104:S10400-S11199, 104:S11200-S11999, 104:S11200-S13599, 104:S13600-S14399, 104:S14400-S15199, 104:S1400-S15199, 104:S15200-S15999,
29	7	20x ACK	20 MSS	ACK für Bild 4-Teil 1	erhöhe cwnd, Sende Bild4 (18 Segmente)	40 MSS	104:S16000-S16799, 104:S16800-S17599, 104:S17600-S18399, 104:S18400-S191999, 104:S120000-S20799, 104:S220000-S21599, 104:S22400-S23199, 104:S22400-S23999, 104:S22400-S23999, 104:S24600-S27499, 104:S24600-S27199, 104:S24600-S27199, 104:S25600-S27999, 104:S28000-S27999, 104:S28000-S27999, 104:S28000-S29999, 104:S28000-S29999, 104:S28000-S29999, 104:S29900-S30000,
29							
30	8	18x ACK, 105Req:S0[0]-S0[799], 105Req:S1[800-S1[1200]	40 MSS	Request Bild 5 (2 Segmenet)	erhöhe cwnd, Sende Bild 5 komplett (15 segmente)	58 MSS	105:S0-5799, 105:S800-S1599, 105:S2400-S2399, 105:S2400-S3199, 105:S2200-S3999, 105:S4200-S599, 105:S4600-S5599, 105:S6400-S7199, 105:S7200-S7999, 105:S8000-S8799, 105:S8000-S10399, 105:S12400-S11199, 105:S12400-S11199, 105:S12400-S11199,
31	9	15x ACK	58 MSS		erhöhe cwnd	73 MSS	
32			•				
33 34	RTT NR	E PIPELINE MIT PAKETVER Tx Client	cwnd Client	Client (Provence)	Canvar	cwnd Server	Tx Server
34		MOReq:S[0]-S0[799],		Client (Browser) HTML-Request (2	Server HTML-Response(2		MO:S0[0]-S1[799],
35	1	MOReq:S1[800-S1[1199]	2 MSS	Segmente)	Segmente)	2 MSS	MO:S1[800]-S2[1599]
36	2	2x ack	2 MSS	Ack dass 2 Segmente angekommen	CWND erhöhen, HTML- Response(1 Segment)	4 MSS	MO:S1[1600]-S2[1999]
37	3	1x ack	4 MSS	ack dass 1 Segment angekommen	erhöhe cwnd	5 MSS	
38	4	I01Req:S0[0]-S0[799], I01Req:S1[800-S1[1599]	5 MSS	Request Bild 1 (2 Segmente)	Sende Bild 1 komplett(4Segmente)	5 MSS	101:S0[0]-S0[799], 101:S1[800]-S1[1599], 101:S2[1600]-S2[2399], 101:S3[2400]-S3[3199]
39	5	4x ack	5 MSS		erhöhe cwnd	9 MSS	
		I02Req:S0[0]-S0[799],		_			
40	6	I02Req:S1[800-S1[1599], I02Req:S1[1600-S1[2399], I02Req:S1[2400-S1[3199]	9 MSS	Request Bild 2 (4 Segmente)	Sende Bild 2 komplett(1 Segment)	9 MSS	l02:S0[0]–S0[799],
41	7	1x ack	9 MSS		erhöhe cwnd	10 MSS	100,00101 001702
40	8	103Req:S0[0]-S0[799], 103Req:S1[800-S1[1599], 103Req:S1[1600-S1[2399], 103Req:S1[2400-S1[3199], 103Req:S1[2400-S1[3999], 103Req:S1[4000-S1[4799]	10 MSS	Request Bild 3 (6 Segmente)	Sende Bild 3komplett (10 Segmente)	10 MSS	103:S0[0]-S0[799], 103:S1[800]-S1[1599], 103:S2[1600]-S2[2399], 103:S3[2400]-S3[3199], 103:S4[3200]-S4[3999], 103:S6[4800]-S6[5599], 103:S7[5600]-S7[6399], 103:S7[5600]-S7[639], 103:S7[5600]-S7[630]-S7[630], 103:S7[5600]-S7[630]-S7[630], 103:S7[5600]-S7[630]-S7[630]-S7[630]
42 43	ο.	10v ack	10 MSS		orhöho overed	20 MSS	103:S9[7200]-S9[7999],
43	J	10x ack	10 MSS		erhöhe cwnd	20 M33	

	Α	В	С	D	E	F	G
44	10	104Req:S0[0]-S0[7 99]	20 MSS	Request Bild 4 (1 Segment)	Sende Bild 4 (20 segmente)	20 MSS	104:S0-S799, 104:S800-S1599, 104:S2400-S2399, 104:S2400-S3199, 104:S2400-S3199, 104:S4800-S5599, 104:S6600-S6399, 104:S6600-S6399, 104:S6400-S7199, 104:S7200-S7999, 104:S8000-S8799, 104:S8800-S9599, 104:S10400-S11199, 104:S11200-S11999, 104:S112000-S12799, 104:S13600-S13599, 104:S13600-S13599, 104:S13600-S15999, 104:S13600-S15999, 104:S1500-S15999, 104:S1500-S15999,
45	11	20x ACK	20 MSS	ACK für Bild 4-Teil 1	erhöhe cwnd, Sende Bild4 (18 Segmente)	40 MSS	104:S16000-S16799, 104:S16800-S17599, 104:S18400-S1999, 104:S18400-S19199, 104:S20000-S20799, 104:S22000-S20799, 104:S22400-S23199, 104:S22400-S23199, 104:S22400-S2399, 104:S2400-S25599, 104:S24600-S26399, 104:S25600-S26399, 104:S27799, 104:S27900-S27999, 104:S28000-S28799, 104:S28000-S28799, 104:S28000-S29599, 104:S28000-S29599, 104:S29600-S30000,
	12	18x ACK	40 MSS		erhöhe cwnd	58 MSS	
46	13	105Req:S0[0]-S0[799], 105Req:S1[800-S1[1200]	58 MSS	Request Bild 5 (2 Segmenet)	Sende Bild 5 komplett (15 segmente)	58 MSS	105:S0-S799, 105:S800-S1599, 105:S1600-S2399, 105:S3200-S3999, 105:S3200-S3999, 105:S4800-S5599, 105:S6500-S6399, 105:S6500-S6399, 105:S6500-S7999, 105:S8000-S8799, 105:S8000-S8799, 105:S800-S9599, 105:S9600-S10399, 105:S1200-S111199, 105:S11200-S11600,
48	14	15x ACK	58 MSS		erhöhe cwnd	73 MSS	
49	15	 	73 MSS	Request Bild 6-14 (1 Segmenet)	Sende Bild 6-14 komplett (10 Segmente) erhöhe cwnd	73 MSS 83 MSS	106-14:S0-S799, 106- 14:S800-S1599, 106- 14:S1600-S2399, 106- 14:S2400-S3199, 106- 14:S200-S3999, 106- 14:S4000-S4799, 106- 14:S4800-S5599, 106- 14:S6400-S6399, 106- 14:S6400-S7199, 106- 14:S7200-S7999,
51		I015Req:S0[0]-S0[799]	83 MSS	Request Bild 15(1 Segmenet)		83 MSS	1015:S0-S799, 1015:S800-S1599, 1015:S1600-S2399, 1015:S2400-S3199,

	Α	В	С	D	E	F	G
52		64x ACK	83 MSS	Sendet 64x ACK	Paketverlust weil sollten eigentlich 65x ACK sein. Reduziere cwdn, Sende Bild6(41 Segmente)	41 MSS	I015:S0-S799, I015:S800-S1599, I015:S1600-S2399, I015:S2400-S3199,
53		41x ACK	41 MSS	Sendet 41x ACK	erhöhe cwnd, Sende Bild6 (24 Segmente)	82 MSS	I015:S32800-33599 I015:S51200-S52000,
54		24x ACK	82 MSS	Sendet 24x ACK	erhöhe cwnd	106 MSS	