Packet loss recovery:

Sender rigs each packet with a retransmission timer that will only turn off if acknowledgement from receiver gets received by the sender and the sequence number matching. Retransmission timer sends the packet again and resets itself

Screenshot:

```
1 /Users/tropicalbeaner/Desktop/DataCommNetworks/venv
                                                                                                                          39 Client confirming packet 1
40 Client confirming packet 2
41 Client confirming packet 3
       /bin/python /Users/tropicalbeaner/Desktop/
DataCommNetworks/HW3_RDT_Protocol/
  reliable_data_transfer.py
2 Started Router
3 Started Server
                                                                                                                           42 Client confirming packet 4
43 Client confirming packet 6
44 Client confirming packet 7
   4 Started Client
  4 Started Client
5 Transmitting 1
6 Server Received seq: 1
7 The message is: 0
8 Server Establishing base and max seq as 1
9 Server expanding packets from max_seq: 1 to 1
                                                                                                                           45 Client confirming packet 8
                                                                                                                           46 Transmitting 9
47 Server Received seq: 9
                                                                                                                           48 The message is: 8
49 Server expanding packets from max_seq: 8 to 9
50 Transmitting 10
 10 Transmitting 2
                                                                                                                           51 Lost packet from sender to receiver
11 Server Received seq: 2
12 The message is: 1
                                                                                                                           52 Transmitting 11
53 Lost packet from sender to receiver
13 Server expanding packets from max_seq: 1 to 2
13 Server expanding packets from max_seq: 1 to 2 14 Transmitting 3 15 Server Received seq: 3 16 The message is: 2 17 Server expanding packets from max_seq: 2 to 3 18 Transmitting 4
                                                                                                                           54 Transmitting 12
                                                                                                                          54 Iransmitting 12
55 Server Received seq: 12
56 The message is: 11
57 Server expanding packets from max_seq: 9 to 12
58 Client confirming packet 9
59 Client confirming packet 12
60 Retransmitting 5 to 127.0.0.1 : 5000
10 Iransmitting 4
19 Server Received seq: 4
20 The message is: 3
21 Server expanding packets from max_seq: 3 to 4
22 Transmitting 5
                                                                                                                           61 Server Received seq: 5
62 The message is: 4
63 Client confirming packet 5
23 Server Received seq: 5
24 The message is: 4
25 Server expanding packets from max_seq: 4 to 5
                                                                                                                           64 Transmitting 13
65 Server Received seq: 13
66 The message is: 12
26 Lost packet from receiver to sender
27 Transmitting 6
28 Server Received seq: 6
                                                                                                                           67 Server expanding packets from max_seq: 12 to 13
                                                                                                                           68 Transmitting 14
69 Server Received seq: 14
                                                                                                                           69 Server Received ser
70 The message is: 13
29 The message is: 5
30 Server expanding packets from max_seq: 5 to 6
31 Transmitting 7
                                                                                                                           71 Server expanding packets from max_seq: 13 to 14
72 Transmitting 15
73 Lost packet from sender to receiver
32 Server Received seq: 7
33 The message is: 6
34 Server expanding packets from max_seq: 6 to 7
                                                                                                                           73 Lost packet from Sender to receiver
74 Transmitting 16
75 Server Received seq: 16
76 The message is: 15
77 Server expanding packets from max_seq: 14 to 16
78 Transmitting 17
79 Server Received seq: 17
35 Transmitting 8
36 Server Received seq: 8
37 The message is: 7
38 Server expanding packets from max_seq: 7 to 8
```

```
80 The message is: 16
81 Server expanding packets from max_seq: 16 to 17
82 Client confirming packet 13
83 Client confirming packet 14
84 Client confirming packet 16
85 Client confirming packet 17
86 Retransmitting 10 to 127.0.8.1: 5000
87 Server Received seq: 10
88 The message is: 9
89 Client confirming packet 18
90 Retransmitting 11 to 127.0.0.1: 5000
91 Lost packet from sender to receiver
92 Transmitting 18
83 Lost packet from sender to receiver
94 Retransmitting 15 to 127.0.0.1: 5000
95 Server Received seq: 15
96 The message is: 14
97 Client confirming packet 15
98 Retransmitting 11 to 127.0.0.1: 5000
99 Server Received seq: 15
100 The message is: 10
101 Client confirming packet 11
102 Retransmitting 18 to 127.0.0.1: 5000
103 Server Received seq: 11
106 The message is: 10
101 Client confirming packet 11
102 Retransmitting 18 to 127.0.0.1: 5000
103 Server Received seq: 18
104 The message is: 17
105 Server expanding packets from max_seq: 17 to 18
106 Client confirming packet 18
107 Transmitting 19
108 Server expanding packets from max_seq: 18 to 19
111 Transmitting 20
112 Server Received seq: 20
113 The message is: 19
114 Server expanding packets from max_seq: 19 to 20
115 Transmitting 21
116 Server Received seq: 21
117 The message is: 20
118 Server expanding packets from max_seq: 20 to 21
117 The message is: 20
118 Server expanding packets from max_seq: 20 to 21
117 The message is: 20
118 Server expanding packets from max_seq: 20 to 21
117 Transmitting 21
120 Server Received seq: 21
117 Transmitting 20
120 Server Received seq: 21
```

```
121 The message is: 21
122 Server expanding packets from max_seq: 21 to 22 123 Transmitting 23 124 Server Received seq: 23
125 The message is: 22
126 Server expanding packets from max_seq: 22 to 23 127 Transmitting 24
128 Server Received seg: 24
129 The message is: 23
130 Server expanding packets from max_seq: 23 to 24
131 Lost packet from receiver to sender
132 Transmitting 25
133 Server Received seq: 25
134 The message is: 24
135 Server expanding packets from max_seq: 24 to 25
136 Lost packet from receiver to sender
136 Lost packet from receiver to sender
137 Transmitting 26
138 Server Received seq: 26
139 The message is: 25
149 Server expanding packets from max_seq: 25 to 26
141 Client confirming packet 19
142 Client confirming packet 20
143 Client confirming packet 21
144 Client confirming packet 22
145 Client confirming packet 23
146 Client confirming packet 26
147 Transmitting 27
148 Server Received seq: 27
149 The message is: 26
150 Server expanding packets from max_seq: 26 to 27
151 Transmitting 28
152 Server Received seq: 28
153 The message is: 27
154 Server expanding packets from max_seq: 27 to 28
155 Transmitting 29
156 Server Received seq: 29
157 The message is: 28
158 Server expanding packets from max_seq: 28 to 29
159 Transmitting 38
160 Server Received seq: 30
161 The message is: 29
```

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```
162 Server expanding packets from max_seq: 29 to 30
163 Client confirming packet 27
164 Client confirming packet 28
165 Client confirming packet 29
166 Client confirming packet 30
167 Retransmitting 24 to 127.0.0.1 : 5000
168 Server Received seq: 24
169 The message is: 23
170 Client confirming packet 24
171 Retransmitting 25 to 127.0.0.1 : 5000
172 Server Received seq: 25
173 The message is: 24
174 Client confirming packet 25
175 Server Received seq: -1
176 The message is: FIN
177 Client is done, sending ack
178 ['0', '1', '2', '3', '4', '5', '6', '7', '8', '9
    ', '10', '11', '12', '13', '14', '15', '16', '17
    ', '18', '19', '20', '21', '22', '23', '24', '25
    ', '20', '27', '28', '29']
179 ACKed end of data, now exiting
180 Done with client
```

Packet Corruption Recovery:

Using a checksum that is added on top of the payload and is calculated using the entire payload. Both sender and receiver check the integrity of the packet by taking the first 8 bytes aka the sent checksum and calculating the received checksum with the remainder of the payload. If both checksums do not match, then the packet is then discarded. Nothing is sent out in acknowledgement, if the sender discards an acknowledgement then the sender will eventually retransmit that specific packet. If the receiver discards a packet, then the sender again will eventually retransmit that specific packet.

1 /Users/tropicalbeaner/Desktop/DataCommNetworks/venv 39 Client confirming packet 8 /bin/python /Users/tropicalbeaner/Desktop/ 40 Retransmitting 1 to 127.0.0.1 : 5000 DataCommNetworks/HW3_RDT_Protocol/ 41 Server Received seq: 1 reliable_data_transfer.py 42 The message is: 0 2 Started Router 43 Server rebasing packets where base_seq: 2 to 1 3 Started Server 44 Client confirming packet 1 4 Started Client 45 Retransmitting 3 to 127.0.0.1 : 5000 46 Server Received seq: 3 5 Transmitting 1 47 The message is: 2
48 Client confirming packet 3
49 Retransmitting 6 to 127.0.0.1 : 5000 6 Corrupted okt from sender to receiver 7 Corrupted packet, discarding 8 Transmitting 2 9 Server Received seq: 2 50 Server Received seq: 6 10 The message is: 1 51 The message is: 5 11 Server Establishing base and max seq as 2 52 Client confirming packet 6 12 Server expanding packets from max_seq: 2 to 2 53 Transmitting 9 13 Transmitting 3 54 Server Received seq: 9 14 Corrupted pkt from sender to receiver 55 The message is: 8 56 Server expanding packets from max_seq: 8 to 9 15 Corrupted packet, discarding 16 Transmitting 4 17 Server Received seq: 4 57 Transmitting 10 58 Server Received seq: 10 18 The message is: 3 59 The message is: 9 60 Server expanding packets from max_seq: 9 to 10 19 Server expanding packets from max_seq: 2 to 4 20 Transmitting 5 61 Transmitting 11 21 Server Received seq: 5 62 Server Received seq: 11 22 The message is: 4 63 The message is: 10 23 Server expanding packets from max_seq: 4 to 5 64 Server expanding packets from max_seq: 10 to 11 24 Transmitting 6 25 Corrupted pkt from sender to receiver 65 Transmitting 12 66 Server Received seq: 12 26 Corrupted packet, discarding 67 The message is: 11 27 Transmitting 7 28 Server Received seq: 7 68 Server expanding packets from max_seq: 11 to 12 69 Transmitting 13 29 The message is: 6 70 Server Received seg: 13 30 Server expanding packets from max_seq: 5 to 7 71 The message is: 12 31 Transmitting 8 72 Server expanding packets from max_seq: 12 to 13 32 Server Received seq: 8 73 Corrupted pkt from receiver to sender 33 The message is: 7 74 Transmitting 14 34 Server expanding packets from max_seq: 7 to 8 75 Server Received seq: 14 35 Client confirming packet 2 36 Client confirming packet 4 76 The message is: 13
77 Server expanding packets from max_seq: 13 to 14 37 Client confirming packet 5 78 Corrupted pkt from receiver to sender

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38 Client confirming packet 7

79 Transmitting 15

80 Server Received seq: 15 81 The message is: 14 121 Transmitting 21 82 Server expanding packets from max_seq: 14 to 15 123 The message is: 20 83 Transmitting 16 84 Server Received seq: 16 85 The message is: 15 126 Transmitting 22 86 Server expanding packets from max_seq: 15 to 16 87 Client confirming packet 9 88 Client confirming packet 10 89 Client confirming packet 11 130 Transmitting 23 90 Client confirming packet 12 91 Client confirming packet 15 92 Client confirming packet 16 93 Transmitting 17 134 Transmitting 24 94 Server Received seq: 17 95 The message is: 16 96 Server expanding packets from max_seq: 16 to 17 137 Transmitting 25 97 Transmitting 18 98 Server Received seq: 18 139 The message is: 24 99 The message is: 17 100 Server expanding packets from max_seq: 17 to 18 101 Transmitting 19 102 Server Received seq: 19 143 The message is: 25 103 The message is: 18 104 Server expanding packets from max_seq: 18 to 19 105 Corrupted pkt from receiver to sender 106 Transmitting 20 107 Server Received seq: 20 108 The message is: 19 109 Server expanding packets from max_seq: 19 to 20 110 Client confirming packet 17 111 Client confirming packet 18 112 Client confirming packet 20 113 Retransmitting 13 to 127.0.0.1 : 5000 114 Server Received seq: 13 154 The message is: 20 115 The message is: 12 116 Client confirming packet 13 117 Retransmitting 14 to 127.0.0.1 : 5000 158 The message is: 23 118 Server Received seq: 14 119 The message is: 13 120 Client confirming packet 14

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122 Server Received seq: 21 124 Server expanding packets from max_seq: 20 to 21 125 Corrupted pkt from receiver to sender 127 Server Received seq: 22 128 The message is: 21 129 Server expanding packets from max_seq: 21 to 22 131 Server Received seq: 23 132 The message is: 22 133 Server expanding packets from max_seq: 22 to 23 135 Corrupted pkt from sender to receiver 136 Corrupted packet, discarding 138 Server Received seq: 25 140 Server expanding packets from max_seq: 23 to 25 141 Transmitting 26 142 Server Received seq: 26 144 Server expanding packets from max_seq: 25 to 26 145 Retransmitting 19 to 127.0.0.1 : 5000 146 Corrupted pkt from sender to receiver 147 Corrupted packet, discarding 148 Client confirming packet 22 149 Client confirming packet 23 150 Client confirming packet 25 151 Client confirming packet 26 152 Retransmitting 21 to 127.0.0.1 : 5000 153 Server Received seq: 21 155 Client confirming packet 21 156 Retransmitting 24 to 127.0.0.1 : 5000 157 Server Received seq: 24 159 Client confirming packet 24 160 Retransmitting 19 to 127.0.0.1 : 5000 161 Server Received seq: 19

```
162 The message is: 18
163 Client confirming packet 19
164 Transmitting 27
165 Server Received seg: 27
166 The message is: 26
167 Server expanding packets from max_seq: 26 to 27
168 Transmitting 28
169 Corrupted pkt from sender to receiver
170 Corrupted packet, discarding
171 Transmitting 29
172 Server Received seq: 29
173 The message is: 28
174 Server expanding packets from max_seq: 27 to 29
175 Transmitting 30
176 Corrupted pkt from sender to receiver
177 Corrupted packet, discarding
178 Client confirming packet 27
179 Client confirming packet 29
180 Retransmitting 28 to 127.0.0.1 : 5000
181 Server Received seq: 28
182 The message is: 27
183 Client confirming packet 28
184 Retransmitting 30 to 127.0.0.1 : 5000
185 Server Received seq: 30
186 The message is: 29
187 Server expanding packets from max_seq: 29 to 30
188 Client confirming packet 30
189 Server Received seq: -1
190 The message is: FIN
191 Client is done, sending ack
193 ACKed end of data, now exiting
194 Done with client
195 Getting no more messages, exiting receiver
```

The above screenshots of both examples show that reordering packets works:

The sender orders the packets by index. The receiver does the same, setting up an array with nothing, when an initial packet is sent in, the base sequence number and maximum sequence is established to the initial packet sequence number.

If for any reason the next packet sequence number is smaller than the current established base sequence number then empty entries are added to the 0th position n times where n is the distance between the established sequence number and the new smaller sequence number. After achieving the appropriate length, the 0th position is populated with received data and base sequence number is set to the new smaller sequence number

The 0th position serves as the base sequence numbers position so the entries are indexed by [sequence number - base sequence number]

If for any reason the next sequence number is bigger than the maximum sequence number, entries are added to the end of the data array n times where n is the distance between the maximum sequence number and the new bigger sequence number. After achieving the

appropriate length, the last position is populated with the received data and maximum sequence number is set to the new bigger sequence number

Otherwise the sequence number is between the base sequence and maximum sequence numbers, then data is populated at the [sequence number - base sequence number] index

Writing a file to a 'server' example:

Initial lines show the file broken up into data chunks with predefined length. This array will be encoded into packets and arranged to be sent by the sender to the receiver where the receiver will print out the array when reassembled fully and writes out the file.

The pdf is too long so I am copying and pasting the lines

/Users/tropicalbeaner/Desktop/DataCommNetworks/venv/bin/python /Users/tropicalbeaner/Desktop/DataCommNetworks/HW3 RDT Protocol/file transfer rdt.py THE S', 'EVEN OLD SAMURA', 'I\n Once upon ', 'a time, in far ', 'off Japan, a ba', 'nd of fierce ro', 'bbers had their', '\nhiding place o', 'n top of a moun', 'tain almost alw', 'ays covered wit', 'h grey clouds,\n', 'windswept and b', 'attered by stor', 'ms. The robbers', ' lived in a lar', 'ge cave where t', 'hey\nhad piled t', 'heir spoils. No', 'w and again, th', 'ey went down th', 'e mountain, att', 'acked a\nvillage', ', murdered the ', 'poor folk they ', 'chanced upon, s', 'tole whatever t', 'hey could\nlay h', 'ands on and bur', 'ned it to the g', 'round. Wherever', ' the robbers pa', 'ssed, there\nwas', 'nothing but sm', 'oking ruins, we', 'eping men and w', 'omen, misery, m', 'ourning and\ndes', 'olation.\n The', 'Emperor, worri', 'ed at this, had', 'sent his soldi', 'ers to attack t', 'he mountain,\nbu', 't the robbers h', 'ad always manag', 'ed to drive the', 'm off. The Empe', 'ror sent for on', 'e\nof the last r', 'emaining Samura', 'i, old Raiko, a', 'nd said to him:', '\n "Raiko, you', "'ve served me f", 'or many years. ', 'Do my bidding f', 'or one last tim', 'e.\nGo to the mo', 'untain at the h', 'ead of an army ', 'and wipe out th', 'ese bloodthirst', 'y\nbandits." Rai', 'ko sighed.\n "', 'Your Majesty, i', 'f I were young ', "again I'd do it", ' alone. Today I', "'m too old,\nfar", ' too old to do ', 'that, or to com', 'mand an army."\n', ' "Must I then', '," said the Emp', 'eror, "submit t', 'o the force of ', 'these marauding', '\nrobbers?" The ', 'old Samurai rep', 'lied:\n "No, I', "'ll go up there", 'with six Samur', 'ai like myself.', '"\n "But if th', "ey're all as ol", 'd as you, how c', 'an they help yo', 'u?"\n "Have fa', 'ith in us!" sai', 'd Raiko.\n A f', 'ew days later, ', 'the seven Samur', 'ai set off on t', 'heir journey, n', 'ot with\nhorses,', ' swords, shield', 's and armour, w', 'hich they could', 'no longer have', 'worn\nanyway, b', 'ut dressed as h', 'umble pilgrims.', ' From the summi', 't, the bandits ', 'watched\nthem co', 'me, and their I', 'eader said,\n', "Who cares abou', 't seven beggars', '. Let them clim', 'b up." The seve', 'n reached the\nc', 'ave and Raiko h', 'umbly said,\n ', "Let us come in', ", it's cold out", "side. There's a", 'wind blowing a', 'nd we, as you\nc', 'an see, are old', "men. We'll be ", 'no trouble to y', 'ou." The leader', ' of the gang\nsc', 'ornfully replie', 'd:\n "Come in,', ' old men, and s', 'tay in a corner', '." And so. the ', 'seven pilgrims\n', 'huddled in a co', 'rner while the ', 'bandits ate the', 'ir meal of food', ' stolen from th', 'e\nvillages near', 'by.\n Now and ', 'again, they thr', 'ew scraps of fo', 'od and leftover', 's to the old me', 'n,\nsaying: "Eat', ' this, and it i', 's much too good', ' for you." A fe', 'w hours later, ', 'Raiko\nrose to h', 'is feet saying:', '\n "The wind h', 'as dropped. We ', 'can go on our w', 'ay. In thanks.', 'for your\nhospit', 'ality, we would', ' like to offer ', 'you this liqueu', 'r, it is sake, ', 'rice wine.\nDrin', 'k our health wi', 'th it." The rob', 'bers needed no ', 'second telling.', ' In the blink\no', 'f an eye, they ', 'had emptied the', ' goatskin bottl', 'e Raika held ou', 't to them. And ', 'in\nthe blink of', ' an eye they al', 'I lay dead, for', ' the sake conta', 'ined a very pot', 'ent\npoison. And', ' so, the seven ', 'Samurai, too ol', 'd to wield a sw', 'ord, served the', '\nEmperor for th', 'e last time.\n']

Transmitting 1

Server Received seq: 1

The message is:

Server Establishing base and max seq as 1 Server expanding packets from max_seq: 1 to 1

Transmitting 2

Server Received seq: 2
The message is: THE S

Server expanding packets from max_seq: 1 to 2

Transmitting 3

Server Received seq: 3

The message is: EVEN OLD SAMURA

Server expanding packets from max_seq: 2 to 3

Transmitting 4

Server Received seq: 4

The message is: I

Once upon

Server expanding packets from max seq: 3 to 4

Transmitting 5

Server Received seq: 5

The message is: a time, in far

Server expanding packets from max_seq: 4 to 5

Transmitting 6

Server Received seq: 6

The message is: off Japan, a ba

Server expanding packets from max seg: 5 to 6

Transmitting 7

Server Received seq: 7

The message is: nd of fierce ro

Server expanding packets from max seq: 6 to 7

Transmitting 8

Server Received seg: 8

The message is: bbers had their

Server expanding packets from max_seq: 7 to 8

Transmitting 9

Server Received seq: 9

The message is: hiding place o

Server expanding packets from max_seq: 8 to 9

Transmitting 10

Server Received seq: 10

The message is: n top of a moun

Server expanding packets from max_seq: 9 to 10

Transmitting 11

Server Received seq: 11

The message is: tain almost alw

Server expanding packets from max seq: 10 to 11

Transmitting 12

Server Received seq: 12

The message is: ays covered wit

Server expanding packets from max_seq: 11 to 12

Transmitting 13

Server Received seq: 13

The message is: h grey clouds,

Server expanding packets from max_seq: 12 to 13

Transmitting 14

Server Received seq: 14

The message is: windswept and b

Server expanding packets from max_seq: 13 to 14

Transmitting 15

Server Received seq: 15

The message is: attered by stor

Server expanding packets from max seq: 14 to 15

Transmitting 16

Server Received seq: 16

The message is: ms. The robbers

Server expanding packets from max_seq: 15 to 16

Transmitting 17

Server Received seq: 17
The message is: lived in a lar

Server expanding packets from max_seq: 16 to 17

Transmitting 18

Server Received seq: 18

The message is: ge cave where t

Server expanding packets from max_seq: 17 to 18

Transmitting 19

Server Received seq: 19 The message is: hey

had piled t

Server expanding packets from max seq: 18 to 19

Transmitting 20

Server Received seq: 20

The message is: heir spoils. No

Server expanding packets from max seq: 19 to 20

Transmitting 21

Server Received seq: 21

The message is: w and again, th

Server expanding packets from max seg: 20 to 21

Transmitting 22

Server Received seq: 22

The message is: ey went down th

Server expanding packets from max_seq: 21 to 22

Transmitting 23

Server Received seq: 23

The message is: e mountain, att

Server expanding packets from max_seq: 22 to 23

Transmitting 24

Server Received seq: 24 The message is: acked a

village

Server expanding packets from max seq: 23 to 24

Transmitting 25

Server Received seq: 25

The message is: , murdered the

Server expanding packets from max_seq: 24 to 25

Retransmitting 1 to 127.0.0.1 : 5000

Server Received seq: 1

The message is: Transmitting 26

Server Received seq: 26

The message is: poor folk they

Server expanding packets from max_seq: 25 to 26

Retransmitting 2 to 127.0.0.1: 5000

Server Received seq: 2
The message is: THE S

Transmitting 27

Server Received seq: 27

The message is: chanced upon, s

Server expanding packets from max_seq: 26 to 27

Retransmitting 3 to 127.0.0.1 : 5000

Server Received seq: 3

The message is: EVEN OLD SAMURA

Transmitting 28

Server Received seq: 28

The message is: tole whatever t

Server expanding packets from max_seq: 27 to 28

Retransmitting 4 to 127.0.0.1 : 5000

Server Received seq: 4

The message is: I Once upon Transmitting 29

Server Received seq: 29 The message is: hey could

lay h

Server expanding packets from max seq: 28 to 29

Retransmitting 5 to 127.0.0.1 : 5000

Server Received seq: 5 The message is: a time, in far

Transmitting 30

Server Received seq: 30

The message is: ands on and bur

Server expanding packets from max_seq: 29 to 30

Retransmitting 6 to 127.0.0.1 : 5000

Server Received seq: 6

The message is: off Japan, a ba

Transmitting 31

Server Received seq: 31
The message is: ned it to the g

Server expanding packets from max_seq: 30 to 31

Retransmitting 7 to 127.0.0.1 : 5000

Server Received seq: 7

The message is: nd of fierce ro

Transmitting 32

Server Received seq: 32

The message is: round. Wherever

Server expanding packets from max_seq: 31 to 32

Retransmitting 8 to 127.0.0.1 : 5000

Server Received seq: 8

The message is: bbers had their

Transmitting 33

Server Received seq: 33

The message is: the robbers pa

Server expanding packets from max_seq: 32 to 33

Retransmitting 9 to 127.0.0.1 : 5000

Server Received seq: 9

The message is: hiding place o Transmitting 34

The message is: ssed, there

was

Server expanding packets from max_seq: 33 to 34

Retransmitting 10 to 127.0.0.1 : 5000

Server Received seq: 10

The message is: n top of a moun

Transmitting 35

Server Received seq: 35

The message is: nothing but sm

Server expanding packets from max seq: 34 to 35

Retransmitting 11 to 127.0.0.1: 5000

Server Received seq: 11

The message is: tain almost alw

Transmitting 36

Server Received seg: 36

The message is: oking ruins, we

Server expanding packets from max_seq: 35 to 36

Retransmitting 12 to 127.0.0.1 : 5000

Server Received seq: 12

The message is: ays covered wit

Transmitting 37

Server Received seq: 37

The message is: eping men and w

Server expanding packets from max_seq: 36 to 37

Retransmitting 13 to 127.0.0.1 : 5000

Server Received seq: 13

The message is: h grey clouds,

Transmitting 38

Server Received seq: 38

The message is: omen, misery, m

Server expanding packets from max seq: 37 to 38

Retransmitting 14 to 127.0.0.1:5000

Server Received seq: 14

The message is: windswept and b

Transmitting 39

Server Received seq: 39 The message is: ourning and

des

Server expanding packets from max seq: 38 to 39

Retransmitting 15 to 127.0.0.1: 5000

Server Received seq: 15

The message is: attered by stor

Transmitting 40

Server Received seq: 40 The message is: olation.

The

Server expanding packets from max_seq: 39 to 40

Retransmitting 16 to 127.0.0.1 : 5000

Server Received seq: 16

The message is: ms. The robbers

Transmitting 41

Server Received seq: 41

The message is: Emperor, worri

Server expanding packets from max_seq: 40 to 41

Retransmitting 17 to 127.0.0.1:5000

Server Received seq: 17
The message is: lived in a lar

Transmitting 42

Server Received seq: 42

The message is: ed at this, had

Server expanding packets from max_seq: 41 to 42

Retransmitting 18 to 127.0.0.1 : 5000

Server Received seq: 18

The message is: ge cave where t

Transmitting 43

Server Received seq: 43

The message is: sent his soldi

Server expanding packets from max_seq: 42 to 43

Retransmitting 19 to 127.0.0.1 : 5000

Server Received seq: 19 The message is: hey

had piled t Transmitting 44

Server Received seq: 44

The message is: ers to attack t

Server expanding packets from max_seq: 43 to 44

Retransmitting 20 to 127.0.0.1: 5000

Server Received seq: 20

The message is: heir spoils. No

Transmitting 45

Server Received seq: 45 The message is: he mountain,

bu

Server expanding packets from max seq: 44 to 45

Retransmitting 21 to 127.0.0.1: 5000

Server Received seq: 21

The message is: w and again, th

Transmitting 46

Server Received seq: 46

The message is: t the robbers h

Server expanding packets from max seq: 45 to 46

Retransmitting 22 to 127.0.0.1 : 5000

Server Received seq: 22

The message is: ey went down th

Client confirming packet 1

Client confirming packet 2

Client confirming packet 3

Client confirming packet 4

Client confirming packet 5

Client confirming packet 6

Client confirming packet 7

Client confirming packet 8

Client confirming packet 9

Client confirming packet 10

Client confirming packet 11

Client confirming packet 12

Client confirming packet 13

Client confirming packet 14

Client confirming packet 15

Client confirming packet 16

Client confirming packet 17

Client confirming packet 18

Client confirming packet 19

Client confirming packet 20

Client confirming packet 21

Client confirming packet 22

Client confirming packet 23

Client confirming packet 24

Client confirming packet 25

Client confirming packet 1

Client confirming packet 26

Client confirming packet 2

Client confirming packet 27

Client confirming packet 3

and the second of the second o

Client confirming packet 28

Client confirming packet 4

Client confirming packet 29

Client confirming packet 5

Client confirming packet 30

Client confirming packet 6

Client confirming packet 31

Client confirming packet 7

Client confirming packet 32

Client confirming packet 8

Client confirming packet 33

Client confirming packet 9

Client confirming packet 34

Client confirming packet 10

Client confirming packet 35

Client confirming packet 11

Client confirming packet 36

Client confirming packet 12

Client confirming packet 37

Client confirming packet 13

Client confirming packet 38

Client confirming packet 14

Client confirming packet 39

Client confirming packet 15

Client confirming packet 40

Client confirming packet 16

Client confirming packet 41

Client confirming packet 17

Client confirming packet 42

Client confirming packet 18

Client confirming packet 43

Client confirming packet 19

Client confirming packet 44

Client confirming packet 20

Client confirming packet 45

Client confirming packet 21

Client confirming packet 46

Client confirming packet 22

Transmitting 47

Server Received seq: 47

The message is: ad always manag

Server expanding packets from max_seq: 46 to 47

Transmitting 48

Server Received seq: 48

The message is: ed to drive the

Server expanding packets from max_seq: 47 to 48

Transmitting 49

Server Received seq: 49

The message is: m off. The Empe

Server expanding packets from max seq: 48 to 49

Transmitting 50

Server Received seq: 50

The message is: ror sent for on

Server expanding packets from max_seq: 49 to 50

Transmitting 51

Server Received seq: 51

The message is: e

of the last r

Server expanding packets from max_seq: 50 to 51

Transmitting 52

Server Received seq: 52

The message is: emaining Samura

Server expanding packets from max_seq: 51 to 52

Transmitting 53

Server Received seq: 53

The message is: i, old Raiko, a

Server expanding packets from max_seq: 52 to 53

Transmitting 54

Server Received seq: 54

The message is: nd said to him:

Server expanding packets from max_seq: 53 to 54

Transmitting 55

Server Received seq: 55

The message is:

"Raiko, you

Server expanding packets from max_seq: 54 to 55

Transmitting 56

Server Received seq: 56

The message is: 've served me f

Server expanding packets from max seq: 55 to 56

Transmitting 57

Server Received seq: 57

The message is: or many years.

Server expanding packets from max_seq: 56 to 57

Transmitting 58

Server Received seq: 58

The message is: Do my bidding f

Server expanding packets from max_seq: 57 to 58

Transmitting 59

Server Received seq: 59

The message is: or one last tim

Server expanding packets from max_seq: 58 to 59

Transmitting 60

Server Received seq: 60

The message is: e.

Go to the mo

Server expanding packets from max_seq: 59 to 60

Transmitting 61

Server Received seq: 61

The message is: untain at the h

Server expanding packets from max seq: 60 to 61

Transmitting 62

Server Received seq: 62

The message is: ead of an army

Server expanding packets from max seq: 61 to 62

Transmitting 63

Server Received seg: 63

The message is: and wipe out th

Server expanding packets from max_seq: 62 to 63

Transmitting 64

Server Received seq: 64

The message is: ese bloodthirst

Server expanding packets from max_seq: 63 to 64

Transmitting 65

Server Received seq: 65

The message is: y

bandits." Rai

Server expanding packets from max seq: 64 to 65

Transmitting 66

Server Received seq: 66 The message is: ko sighed.

,,

Server expanding packets from max_seq: 65 to 66

Transmitting 67

Server Received seq: 67

The message is: Your Majesty, i

Server expanding packets from max seq: 66 to 67

Transmitting 68

Server Received seq: 68

The message is: f I were young

Server expanding packets from max_seq: 67 to 68

Transmitting 69

Server Received seq: 69

The message is: again I'd do it

Server expanding packets from max_seq: 68 to 69

Transmitting 70

Server Received seq: 70

The message is: alone. Today I

Server expanding packets from max_seq: 69 to 70

Transmitting 71

Server Received seq: 71 The message is: 'm too old,

far

Server expanding packets from max seq: 70 to 71

Retransmitting 47 to 127.0.0.1 : 5000

Server Received seg: 47

The message is: ad always manag

Transmitting 72

Server Received seq: 72 The message is: too old to do

Server expanding packets from max_seq: 71 to 72

Retransmitting 48 to 127.0.0.1 : 5000

Server Received seq: 48

The message is: ed to drive the

Transmitting 73

Server Received seq: 73

The message is: that, or to com

Server expanding packets from max_seq: 72 to 73

Retransmitting 49 to 127.0.0.1 : 5000

Server Received seq: 49

The message is: m off. The Empe

Transmitting 74

Server Received seq: 74

The message is: mand an army."

Server expanding packets from max_seq: 73 to 74

Retransmitting 50 to 127.0.0.1 : 5000

Server Received seg: 50

The message is: ror sent for on

Transmitting 75

Server Received seq: 75

The message is: "Must I then

Server expanding packets from max seq: 74 to 75

Retransmitting 51 to 127.0.0.1:5000

Server Received seq: 51

The message is: e

of the last r

Transmitting 76

Server Received seg: 76

The message is: ," said the Emp

Server expanding packets from max_seq: 75 to 76

Retransmitting 52 to 127.0.0.1 : 5000

The message is: emaining Samura

Transmitting 77

Server Received seq: 77

The message is: eror, "submit t

Server expanding packets from max_seq: 76 to 77

Retransmitting 53 to 127.0.0.1 : 5000

Server Received seq: 53

The message is: i, old Raiko, a

Transmitting 78

Server Received seq: 78
The message is: o the force of

Server expanding packets from max_seq: 77 to 78

Retransmitting 54 to 127.0.0.1 : 5000

Server Received seg: 54

The message is: nd said to him:

Transmitting 79

Server Received seg: 79

The message is: these marauding

Server expanding packets from max_seq: 78 to 79

Retransmitting 55 to 127.0.0.1 : 5000

Server Received seq: 55

The message is: "Raiko, you

Transmitting 80

Server Received seq: 80

The message is: robbers?" The

Server expanding packets from max seq: 79 to 80

Retransmitting 56 to 127.0.0.1:5000

Server Received seq: 56

The message is: 've served me f

Transmitting 81

Server Received seq: 81

The message is: old Samurai rep

Server expanding packets from max_seq: 80 to 81

Retransmitting 57 to 127.0.0.1 : 5000

Server Received seq: 57

The message is: or many years.

Transmitting 82

Server Received seq: 82 The message is: lied:

"No, I

Server expanding packets from max seq: 81 to 82

Retransmitting 58 to 127.0.0.1 : 5000

Server Received seq: 58

The message is: Do my bidding f

Transmitting 83

Server Received seq: 83

The message is: 'Il go up there

Server expanding packets from max seq: 82 to 83

Retransmitting 59 to 127.0.0.1:5000

Server Received seq: 59

The message is: or one last tim

Transmitting 84

Server Received seq: 84

The message is: with six Samur

Server expanding packets from max_seq: 83 to 84

Retransmitting 60 to 127.0.0.1 : 5000

Server Received seq: 60

The message is: e.

Go to the mo

Transmitting 85

Server Received seq: 85

The message is: ai like myself.

Server expanding packets from max_seq: 84 to 85

Retransmitting 61 to 127.0.0.1: 5000

Server Received seq: 61

The message is: untain at the h

Transmitting 86

Server Received seq: 86

The message is: "

"But if th

Server expanding packets from max_seq: 85 to 86

Retransmitting 62 to 127.0.0.1 : 5000

Server Received seq: 62

The message is: ead of an army

Transmitting 87

Server Received seq: 87

The message is: ey're all as of

Server expanding packets from max seq: 86 to 87

Retransmitting 63 to 127.0.0.1 : 5000

Server Received seg: 63

The message is: and wipe out th

Transmitting 88

Server Received seq: 88

The message is: d as you, how c

Server expanding packets from max seq: 87 to 88

Retransmitting 64 to 127.0.0.1 : 5000

Server Received seq: 64

The message is: ese bloodthirst

Transmitting 89

Server Received seq: 89

The message is: an they help yo

Server expanding packets from max seq: 88 to 89

Retransmitting 65 to 127.0.0.1: 5000

Server Received seq: 65

The message is: y

bandits." Rai

Transmitting 90

Server Received seq: 90 The message is: u?"

"Have fa

Server expanding packets from max seq: 89 to 90

Retransmitting 66 to 127.0.0.1 : 5000

Server Received seq: 66 The message is: ko sighed.

"

Transmitting 91

Server Received seq: 91

The message is: ith in us!" sai

Server expanding packets from max seq: 90 to 91

Retransmitting 67 to 127.0.0.1: 5000

Server Received seq: 67

The message is: Your Majesty, i

Transmitting 92

Server Received seq: 92 The message is: d Raiko.

A f

Server expanding packets from max seq: 91 to 92

Retransmitting 68 to 127.0.0.1:5000

Server Received seq: 68

The message is: f I were young

Client confirming packet 47

Client confirming packet 48

Client confirming packet 49

Client confirming packet 50

0" (5)

Client confirming packet 51 Client confirming packet 52

Client confirming packet 53

Client confirming packet 54

Client confirming packet 55

Client confirming packet 56

- Client confirming packet 57
- Client confirming packet 58
- Client confirming packet 59
- Client confirming packet 60
- Client confirming packet 61
- Client confirming packet 62
- Client confirming packet 63
- Client confirming packet 64
- Client confirming packet 65
- Client confirming packet 66
- Client confirming packet 67
- Client confirming packet 68
- Client confirming packet 69
- Client confirming packet 70
- Client confirming packet 71
- Client confirming packet 47
- Client confirming packet 72
- Client confirming packet 48
- Client confirming packet 73
- Client confirming packet 49
- Client confirming packet 74
- Client confirming packet 50
- Client confirming packet 75
- Client confirming packet 51
- 011 1 5 1 70
- Client confirming packet 76
- Client confirming packet 52
- Client confirming packet 77
- Client confirming packet 53
- Client confirming packet 78
- Client confirming packet 54
- Client confirming packet 79
- Client confirming packet 55
- Client confirming packet 80
- Client confirming packet 56
- Client confirming packet 81
- Client confirming packet 57
- Client confirming packet 82
- Client confirming packet 58
- Client confirming packet 83
- Client confirming packet 59
- Client confirming packet 84
- Client confirming packet 60
- Client confirming packet 85
- Client confirming packet 61

Client confirming packet 86

Client confirming packet 62

Client confirming packet 87

Client confirming packet 63

Client confirming packet 88

Client confirming packet 64

Client confirming packet 89

Client confirming packet 65

Client confirming packet 90

Client confirming packet 66

Client confirming packet 91

Client confirming packet 67

Client confirming packet 92

Client confirming packet 68

Transmitting 93

Server Received seq: 93

The message is: ew days later,

Server expanding packets from max_seq: 92 to 93

Transmitting 94

Server Received seq: 94

The message is: the seven Samur

Server expanding packets from max_seq: 93 to 94

Transmitting 95

Server Received seq: 95

The message is: ai set off on t

Server expanding packets from max seq: 94 to 95

Transmitting 96

Server Received seq: 96

The message is: heir journey, n

Server expanding packets from max_seq: 95 to 96

Transmitting 97

Server Received seq: 97 The message is: ot with

horses,

Server expanding packets from max seq: 96 to 97

Transmitting 98

Server Received seq: 98

The message is: swords, shield

Server expanding packets from max_seq: 97 to 98

Transmitting 99

Server Received seq: 99

The message is: s and armour, w

Server expanding packets from max seq: 98 to 99

Transmitting 100

Server Received seq: 100

The message is: hich they could

Server expanding packets from max_seq: 99 to 100

Transmitting 101

Server Received seq: 101

The message is: no longer have

Server expanding packets from max seg: 100 to 101

Transmitting 102

Server Received seq: 102 The message is: worn

anyway, b

Server expanding packets from max_seq: 101 to 102

Transmitting 103

Server Received seq: 103

The message is: ut dressed as h

Server expanding packets from max_seq: 102 to 103

Transmitting 104

Server Received seq: 104

The message is: umble pilgrims.

Server expanding packets from max seq: 103 to 104

Transmitting 105

Server Received seq: 105

The message is: From the summi

Server expanding packets from max_seq: 104 to 105

Transmitting 106

Server Received seq: 106 The message is: t, the bandits

Server expanding packets from max seq: 105 to 106

Transmitting 107

Server Received seq: 107 The message is: watched

them co

Server expanding packets from max_seq: 106 to 107

Transmitting 108

Server Received seq: 108
The message is: me, and their I

Server expanding packets from max_seq: 107 to 108

Transmitting 109

Server Received seq: 109 The message is: eader said,

Server expanding packets from max_seq: 108 to 109

Transmitting 110

The message is: "Who cares abou

Server expanding packets from max_seq: 109 to 110

Transmitting 111

Server Received seq: 111

The message is: t seven beggars

Server expanding packets from max seq: 110 to 111

Transmitting 112

Server Received seq: 112
The message is: . Let them clim

Server expanding packets from max seq: 111 to 112

Transmitting 113

Server Received seq: 113

The message is: b up." The seve

Server expanding packets from max_seq: 112 to 113

Transmitting 114

Server Received seq: 114
The message is: n reached the

С

Server expanding packets from max_seq: 113 to 114

Transmitting 115

Server Received seq: 115

The message is: ave and Raiko h

Server expanding packets from max seq: 114 to 115

Transmitting 116

Server Received seq: 116 The message is: umbly said,

Server expanding packets from max seq: 115 to 116

Transmitting 117

Server Received seq: 117

The message is: "Let us come in

Server expanding packets from max seq: 116 to 117

Retransmitting 93 to 127.0.0.1 : 5000

Server Received seq: 93

The message is: ew days later,

Transmitting 118

Server Received seq: 118
The message is: , it's cold out

Server expanding packets from max_seq: 117 to 118

Retransmitting 94 to 127.0.0.1 : 5000

Server Received seq: 94

The message is: the seven Samur

Transmitting 119

The message is: side. There's a

Server expanding packets from max_seq: 118 to 119

Retransmitting 95 to 127.0.0.1 : 5000

Server Received seq: 95 The message is: ai set off on t

Transmitting 120

Server Received seq: 120

The message is: wind blowing a

Server expanding packets from max_seq: 119 to 120

Retransmitting 96 to 127.0.0.1: 5000

Server Received seq: 96 The message is: heir journey, n

Transmitting 121

Server Received seq: 121
The message is: nd we, as you

С

Server expanding packets from max_seq: 120 to 121

Retransmitting 97 to 127.0.0.1 : 5000

Server Received seq: 97 The message is: ot with

horses,

Transmitting 122

Server Received seq: 122

The message is: an see, are old

Server expanding packets from max_seq: 121 to 122

Retransmitting 98 to 127.0.0.1 : 5000

Server Received seq: 98

The message is: swords, shield

Transmitting 123

Server Received seq: 123 The message is: men. We'll be

Server expanding packets from max seg: 122 to 123

Retransmitting 99 to 127.0.0.1 : 5000

Server Received seq: 99

The message is: s and armour, w

Transmitting 124

Server Received seq: 124
The message is: no trouble to y

Server expanding packets from max_seq: 123 to 124

Retransmitting 100 to 127.0.0.1 : 5000

Server Received seq: 100 The message is: hich they could

Transmitting 125

The message is: ou." The leader

Server expanding packets from max_seq: 124 to 125

Retransmitting 101 to 127.0.0.1 : 5000

Server Received seq: 101

The message is: no longer have

Transmitting 126

Server Received seq: 126 The message is: of the gang

SC

Server expanding packets from max_seq: 125 to 126

Retransmitting 102 to 127.0.0.1: 5000

Server Received seq: 102 The message is: worn

anyway, b

Transmitting 127

Server Received seq: 127
The message is: ornfully replie

Server expanding packets from max_seq: 126 to 127

Retransmitting 103 to 127.0.0.1 : 5000

Server Received seq: 103

The message is: ut dressed as h

Transmitting 128

Server Received seq: 128

The message is: d:

"Come in,

Server expanding packets from max seq: 127 to 128

Retransmitting 104 to 127.0.0.1: 5000

Server Received seq: 104

The message is: umble pilgrims.

Transmitting 129

Server Received seq: 129

The message is: old men, and s

Server expanding packets from max_seq: 128 to 129

Retransmitting 105 to 127.0.0.1 : 5000

Server Received seg: 105

The message is: From the summi

Transmitting 130

Server Received seq: 130
The message is: tay in a corner

Server expanding packets from max seq: 129 to 130

Retransmitting 106 to 127.0.0.1 : 5000

Server Received seq: 106 The message is: t, the bandits

Transmitting 131

Server Received seq: 131 The message is: ." And so. the

Server expanding packets from max_seq: 130 to 131

Retransmitting 107 to 127.0.0.1 : 5000

Server Received seq: 107 The message is: watched

them co

Transmitting 132

Server Received seq: 132
The message is: seven pilgrims

Server expanding packets from max_seq: 131 to 132

Retransmitting 108 to 127.0.0.1 : 5000

Server Received seq: 108
The message is: me, and their I

Transmitting 133

Server Received seq: 133

The message is: huddled in a co

Server expanding packets from max_seq: 132 to 133

Retransmitting 109 to 127.0.0.1: 5000

Server Received seq: 109 The message is: eader said,

Transmitting 134

Server Received seq: 134
The message is: rner while the

Server expanding packets from max_seq: 133 to 134

Retransmitting 110 to 127.0.0.1: 5000

Server Received seg: 110

The message is: "Who cares abou

Transmitting 135

Server Received seq: 135
The message is: bandits ate the

Server expanding packets from max_seq: 134 to 135

Retransmitting 111 to 127.0.0.1 : 5000

Server Received seq: 111

The message is: t seven beggars

Transmitting 136

Server Received seq: 136
The message is: ir meal of food

Server expanding packets from max_seq: 135 to 136

Retransmitting 112 to 127.0.0.1 : 5000

Server Received seq: 112

The message is: . Let them clim

Transmitting 137

Server Received seq: 137

The message is: stolen from th

Server expanding packets from max_seq: 136 to 137

Retransmitting 113 to 127.0.0.1 : 5000

Server Received seq: 113

The message is: b up." The seve

Transmitting 138

Server Received seq: 138

The message is: e

villages near

Server expanding packets from max seg: 137 to 138

Retransmitting 114 to 127.0.0.1: 5000

Server Received seq: 114

The message is: n reached the

С

Client confirming packet 93

Client confirming packet 94

Client confirming packet 95

Client confirming packet 96

Client confirming packet 97

Client confirming packet 98

Client confirming packet 99

Client confirming packet 100

Client confirming packet 101

Client confirming packet 102

Client confirming packet 103

Client confirming packet 104

Client confirming packet 105

Client confirming packet 106

Client confirming packet 107

Client confirming packet 108

Client confirming packet 109

Client confirming packet 110

Client confirming packet 111

Oli - -- t - - -- fi---- i-- -- -- -- -- t - 440

Client confirming packet 112

Client confirming packet 113

Client confirming packet 114

Client confirming packet 115

Client confirming packet 116

Client confirming packet 117

Client confirming packet 93

Client confirming packet 118

Client confirming packet 94

Client confirming packet 119

Client confirming packet 95

Client confirming packet 120

Client confirming packet 96

Client confirming packet 121

Client confirming packet 97

Client confirming packet 122

Client confirming packet 98

Client confirming packet 123

Client confirming packet 99

Client confirming packet 124

Client confirming packet 100

Client confirming packet 125

Client confirming packet 101

Client confirming packet 126

Client confirming packet 102

Client confirming packet 127

Client confirming packet 103

Client confirming packet 128

Client confirming packet 104

Client confirming packet 129

Client confirming packet 105

Client confirming packet 130

Client confirming packet 106

Client confirming packet 131

Client confirming packet 107

Client confirming packet 132

Client confirming packet 108

Client confirming packet 133

Client confirming packet 109

Client confirming packet 134

Client confirming packet 110

Client confirming packet 135

Client confirming packet 111

Client confirming packet 136

Client confirming packet 112

Client confirming packet 137

Client confirming packet 113

Client confirming packet 138

Client confirming packet 114

Transmitting 139

Server Received seq: 139

The message is: by.

Now and

Server expanding packets from max_seq: 138 to 139

Transmitting 140

Server Received seq: 140
The message is: again, they thr

Server expanding packets from max seq: 139 to 140

Transmitting 141

Server Received seq: 141
The message is: ew scraps of fo

Server expanding packets from max seg: 140 to 141

Transmitting 142

Server Received seq: 142 The message is: od and leftover

Server expanding packets from max seq: 141 to 142

Transmitting 143

Server Received seq: 143
The message is: s to the old me

Server expanding packets from max_seq: 142 to 143

Transmitting 144

Server Received seq: 144

The message is: n,

saying: "Eat

Server expanding packets from max_seq: 143 to 144

Transmitting 145

Server Received seq: 145 The message is: this, and it i

Server expanding packets from max seq: 144 to 145

Transmitting 146

Server Received seq: 146

The message is: s much too good

Server expanding packets from max_seq: 145 to 146

Transmitting 147

Server Received seq: 147 The message is: for you." A fe

Server expanding packets from max_seq: 146 to 147

Transmitting 148

Server Received seq: 148
The message is: w hours later,

Server expanding packets from max_seq: 147 to 148

Transmitting 149

Server Received seq: 149 The message is: Raiko

rose to h

Server expanding packets from max seq: 148 to 149

Transmitting 150

Server Received seq: 150 The message is: is feet saying:

Server expanding packets from max seq: 149 to 150

Transmitting 151

Server Received seq: 151

The message is: "The wind h

Server expanding packets from max_seq: 150 to 151

Transmitting 152

Server Received seq: 152

The message is: as dropped. We

Server expanding packets from max_seq: 151 to 152

Transmitting 153

Server Received seq: 153

The message is: can go on our w

Server expanding packets from max_seq: 152 to 153

Transmitting 154

Server Received seq: 154 The message is: ay. In thanks.

Server expanding packets from max seq: 153 to 154

Transmitting 155

Server Received seq: 155 The message is: for your

hospit

Server expanding packets from max_seq: 154 to 155

Transmitting 156

Server Received seq: 156
The message is: ality, we would

Server expanding packets from max_seq: 155 to 156

Transmitting 157

Server Received seq: 157
The message is: like to offer

Server expanding packets from max_seq: 156 to 157

Transmitting 158

Server Received seq: 158
The message is: you this liqueu

Server expanding packets from max_seq: 157 to 158

Transmitting 159

Server Received seq: 159 The message is: r, it is sake,

Server expanding packets from max seq: 158 to 159

Transmitting 160

Server Received seq: 160 The message is: rice wine. Drin

Server expanding packets from max_seq: 159 to 160

Transmitting 161

Server Received seq: 161
The message is: k our health wi

Server expanding packets from max seq: 160 to 161

Transmitting 162

Server Received seq: 162 The message is: th it." The rob

Server expanding packets from max seq: 161 to 162

Transmitting 163

Server Received seq: 163
The message is: bers needed no

Server expanding packets from max_seq: 162 to 163

Retransmitting 139 to 127.0.0.1 : 5000

Server Received seq: 139

The message is: by.

Now and

Transmitting 164

Server Received seq: 164
The message is: second telling.

Server expanding packets from max_seq: 163 to 164

Retransmitting 140 to 127.0.0.1: 5000

Server Received seq: 140
The message is: again, they thr

Transmitting 165

Server Received seq: 165
The message is: In the blink

0

Server expanding packets from max_seq: 164 to 165

Retransmitting 141 to 127.0.0.1: 5000

Server Received seq: 141

The message is: ew scraps of fo

Transmitting 166

Server Received seq: 166 The message is: f an eye, they

Server expanding packets from max_seq: 165 to 166

Retransmitting 142 to 127.0.0.1: 5000

Server Received seg: 142

The message is: od and leftover

Transmitting 167

Server Received seg: 167

The message is: had emptied the

Server expanding packets from max_seq: 166 to 167

Retransmitting 143 to 127.0.0.1 : 5000

Server Received seq: 143

The message is: s to the old me

Transmitting 168

Server Received seq: 168
The message is: goatskin bottl

Server expanding packets from max seg: 167 to 168

Retransmitting 144 to 127.0.0.1: 5000

Server Received seq: 144

The message is: n,

saying: "Eat

Transmitting 169

Server Received seq: 169

The message is: e Raika held ou

Server expanding packets from max_seq: 168 to 169

Retransmitting 145 to 127.0.0.1: 5000

Server Received seq: 145
The message is: this, and it i

Transmitting 170

Server Received seq: 170 The message is: t to them. And

Server expanding packets from max_seq: 169 to 170

Retransmitting 146 to 127.0.0.1 : 5000

Server Received seq: 146

The message is: s much too good

Transmitting 171

Server Received seq: 171

The message is: in

the blink of

Server expanding packets from max_seq: 170 to 171

Retransmitting 147 to 127.0.0.1 : 5000

Server Received seq: 147 The message is: for you." A fe

Transmitting 172

Server Received seq: 172

The message is: an eye they al

Server expanding packets from max_seq: 171 to 172

Retransmitting 148 to 127.0.0.1:5000

Server Received seq: 148
The message is: w hours later,

Transmitting 173

Server Received seq: 173 The message is: I lay dead, for

Server expanding packets from max_seq: 172 to 173

Retransmitting 149 to 127.0.0.1: 5000

Server Received seq: 149 The message is: Raiko

rose to h

Transmitting 174

Server Received seq: 174

The message is: the sake conta

Server expanding packets from max seq: 173 to 174

Retransmitting 150 to 127.0.0.1: 5000

Server Received seg: 150 The message is: is feet saying:

Transmitting 175

Server Received seq: 175

The message is: ined a very pot

Server expanding packets from max seq: 174 to 175

Retransmitting 151 to 127.0.0.1:5000

Server Received seg: 151

The message is: "The wind h

Transmitting 176

Server Received seq: 176

The message is: ent

poison. And

Server expanding packets from max seg: 175 to 176

Retransmitting 152 to 127.0.0.1 : 5000

Server Received seq: 152

The message is: as dropped. We

Transmitting 177

Server Received seq: 177

The message is: so, the seven

Server expanding packets from max seq: 176 to 177

Retransmitting 153 to 127.0.0.1: 5000

Server Received seq: 153

The message is: can go on our w

Transmitting 178

Server Received seq: 178

The message is: Samurai, too ol

Server expanding packets from max seq: 177 to 178

Retransmitting 154 to 127.0.0.1 : 5000

Server Received seg: 154 The message is: ay. In thanks.

Transmitting 179

Server Received seq: 179

The message is: d to wield a sw

Server expanding packets from max_seq: 178 to 179

Retransmitting 155 to 127.0.0.1 : 5000

Server Received seq: 155 The message is: for your

hospit

Transmitting 180

Server Received seq: 180

The message is: ord, served the

Server expanding packets from max_seq: 179 to 180

Retransmitting 156 to 127.0.0.1: 5000

Server Received seq: 156

The message is: ality, we would

Transmitting 181

Server Received seq: 181

The message is: Emperor for th

Server expanding packets from max_seq: 180 to 181

Retransmitting 157 to 127.0.0.1: 5000

Server Received seq: 157
The message is: like to offer

Transmitting 182

Server Received seq: 182 The message is: e last time.

Server expanding packets from max_seq: 181 to 182

Retransmitting 158 to 127.0.0.1: 5000

Server Received seq: 158

The message is: you this liqueu Client confirming packet 139

Client confirming packet 140

Client confirming packet 141

Client confirming packet 142

Client confirming packet 143

Client confirming packet 144

Client confirming packet 145

Client confirming packet 146

Client confirming packet 147

Client confirming packet 148

Client confirming packet 149

Client confirming packet 150

Client confirming packet 151 Client confirming packet 152

Client confirming packet 153

Client confirming packet 154

- Client confirming packet 155
- Client confirming packet 156
- Client confirming packet 157
- Client confirming packet 158
- Client confirming packet 159
- Client confirming packet 160
- Client confirming packet 161
- Client confirming packet 162
- Client confirming packet 163
- Client confirming packet 139
- Client confirming packet 164
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- Cheft Comming packet 140
- Client confirming packet 165
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- Olichi commining packet 150
- Client confirming packet 175 Client confirming packet 151
- Client confirming packet 176
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- Client confirming packet 152
- Client confirming packet 177
- Client confirming packet 153
- Client confirming packet 178
- Client confirming packet 154
- Client confirming packet 179
- Client confirming packet 155
- Client confirming packet 180
- Client confirming packet 156

Client confirming packet 181 Client confirming packet 157 Client confirming packet 182 Client confirming packet 158 Server Received seq: -1 The message is: FIN Client is done, sending ack

THE S', 'EVEN OLD SAMURA', 'I\n Once upon ', 'a time, in far ', 'off Japan, a ba', 'nd of fierce ro', 'bbers had their', '\nhiding place o', 'n top of a moun', 'tain almost alw', 'ays covered wit', 'h grey clouds,\n', 'windswept and b', 'attered by stor', 'ms. The robbers', ' lived in a lar', 'ge cave where t', 'hey\nhad piled t', 'heir spoils. No', 'w and again, th', 'ey went down th', 'e mountain, att', 'acked a\nvillage', ', murdered the ', 'poor folk they ', 'chanced upon, s', 'tole whatever t', 'hey could\nlay h', 'ands on and bur', 'ned it to the g', 'round. Wherever', ' the robbers pa', 'ssed, there\nwas', 'nothing but sm', 'oking ruins, we', 'eping men and w', 'omen, misery, m', 'ourning and\ndes', 'olation.\n The', 'Emperor, worri', 'ed at this, had', 'sent his soldi', 'ers to attack t', 'he mountain,\nbu', 't the robbers h', 'ad always manag', 'ed to drive the', 'm off. The Empe', 'ror sent for on', 'e\nof the last r', 'emaining Samura', 'i, old Raiko, a', 'nd said to him:', '\n "Raiko, you', "'ve served me f", 'or many years. ', 'Do my bidding f', 'or one last tim', 'e.\nGo to the mo', 'untain at the h', 'ead of an army ', 'and wipe out th', 'ese bloodthirst', 'y\nbandits." Rai', 'ko sighed.\n "', 'Your Majesty, i', 'f I were young ', "again I'd do it", ' alone. Today I', "'m too old,\nfar", ' too old to do ', 'that, or to com', 'mand an army."\n', ' "Must I then', '," said the Emp', 'eror, "submit t', 'o the force of ', 'these marauding', '\nrobbers?" The ', 'old Samurai rep', 'lied:\n "No, I', "'ll go up there", 'with six Samur', 'ai like myself.', "'\n "But if th', "ey're all as ol", 'd as you, how c', 'an they help yo', 'u?"\n "Have fa', 'ith in us!" sai', 'd Raiko.\n A f', 'ew days later, ', 'the seven Samur', 'ai set off on t', 'heir journey, n', 'ot with\nhorses,', ' swords, shield', 's and armour, w', 'hich they could', 'no longer have', 'worn\nanyway, b', 'ut dressed as h', 'umble pilgrims.', ' From the summi', 't, the bandits ', 'watched\nthem co', 'me, and their I', 'eader said,\n', "Who cares abou', 't seven beggars', '. Let them clim', 'b up." The seve', 'n reached the\nc', 'ave and Raiko h', 'umbly said,\n ', "Let us come in', ", it's cold out", "side. There's a", 'wind blowing a', 'nd we, as you\nc', 'an see, are old', "men. We'll be ", 'no trouble to y', 'ou." The leader', ' of the gang\nsc', 'ornfully replie', 'd:\n "Come in,', ' old men, and s', 'tay in a corner', '." And so, the ', 'seven pilgrims\n', 'huddled in a co', 'rner while the ', 'bandits ate the', 'ir meal of food', ' stolen from th', 'e\nvillages near', 'by.\n Now and ', 'again, they thr', 'ew scraps of fo', 'od and leftover', 's to the old me', 'n,\nsaying: "Eat', ' this, and it i', 's much too good', ' for you." A fe', 'w hours later, ', 'Raiko\nrose to h', 'is feet saying:', '\n "The wind h', 'as dropped. We ', 'can go on our w', 'ay. In thanks. ', 'for your\nhospit', 'ality, we would', ' like to offer ', 'you this liqueu', 'r, it is sake, ', 'rice wine.\nDrin', 'k our health wi', 'th it." The rob', 'bers needed no ', 'second telling.', ' In the blink\no', 'f an eye, they ', 'had emptied the', ' goatskin bottl', 'e Raika held ou', 't to them. And ', 'in\nthe blink of', ' an eye they al', 'I lay dead, for', ' the sake conta', 'ined a very pot', 'ent\npoison. And', 'so, the seven', 'Samurai, too ol', 'd to wield a sw', 'ord, served the', '\nEmperor for th', 'e last time.\n']

ACKed end of data, now exiting

Sent file

Getting no more messages, exiting receiver

Process finished with exit code 0