CLAIMS

1. Method for data packets transmission, comprising the steps of

- transmitting (203) a first group of data packets with a first bitrate, the data packets of said first group comprising a first payload (P) having a specified number of bits,
- checking (205) quality of transmission of said first group of data packets,
- if transmission quality of said first group of data packets is above a first threshold, transmitting (208-209) a second group of data packets with a second bitrate, the data packets in said second group comprising said first ~~a second~~ payload and additional control data (C1) allowing a receiver to check consistency of the delivered second ~~payload~~group of data packets, whereby said second bitrate is higher than said first bitrate;~~.~~

~~2. Method for data packets transmission according to claim 1, comprising the steps of~~

- checking (211) quality of transmission of said second group of data packets,
- if transmission quality of said second group of data packets is above a second threshold, transmitting a third group of data packets with said second bitrate, the data packets in said third group comprising a second payload comprising more bits than said ~~second~~ first payload, thereby increasing the bitrate of said second payload.

~~3.~~ 2. Method according to claim 1 ~~or 2~~, comprising the steps of

- checking (211) quality of transmission of said second group of data packets,
- if said transmission quality of said second group of data packets is below a second threshold, transmitting a fourth group of data packets with said first bitrate, said fourth group comprising a payload comprising the same number of bits of said first payload.

43. Method according to claim 1 or 2 ~~or 3~~, further comprising the step of transmitting (205-206) a group of data packets with a third bitrate if transmission quality of said first group of data packets is below a third threshold, said third bitrate being lower than said first bitrate.

~~5~~4. Method according to claim ~~4~~3, further comprising the step of transmitting (205-203) a group of data packets with said first bitrate if transmission quality of said first group of data packets is comprised between said first and said third threshold.

~~6~~5. Method according to any of claims 1 to ~~5~~4, wherein said first payload and said second payload have the same number of bits.

~~7~~6. Method according to any of claims 1 to ~~6~~5, wherein said additional control data are generated according to a FEC scheme.

~~8~~7. Method according to any of claims 1 to 6, wherein said additional control data are used for coding a respective payload of a packet of said second group of data packets, whereby the receiver can check consistency of the delivered payload by decoding received packets.

~~9~~8. Method according to any of claims 1 to ~~8~~7, wherein said first bitrate depends on information generated by the receiver before starting of transmission.

~~10. Method according to any of claims 1 to 8, wherein said first group of data packets comprises data packets with coded with a different compression bitrate, and wherein said first bitrate is the average or the maximum of the compression bitrates of said first group of data packets.~~

9. Method according to any of claims 1 to 8, wherein said first group of data packets comprises data packets compressed with a compression bitrate, the bitrate at which the packets are transmitted being selected as the maximum between the maximum bitrate supported by the connection and the maximum compression bitrate of the data packets to be transmitted, if data packets have a variable compression bitrate, the transmission bitrate is selected as the average or the maximum compression bitrate.

~~11~~10. Method according to any of claims 1 to ~~10~~9, wherein quality of transmission is measured as the inverse of the number of transmission errors (ε).

~~12~~11. Method according to any of claims 1 to ~~10~~9, wherein data packets are classified based on a priority scheme and wherein quality of transmission is measured as the inverse of a packet loss rate defined as

$$R = \frac{a \cdot \sum_i Pll_i + b \cdot \sum_i Plh_i}{a \cdot \sum_i Pl_i + b \cdot \sum_i Ph_i}$$

wherein R is the packet loss rate, Pl are packets with low priority, Ph are packets with high priority, Pll are low priority packets lost, Plh are high priority packets lost, a and b are constants with b > a.

~~13~~12. Method according to any of claims 1 to ~~12~~11, wherein said first threshold depends on the bitrate at which data packets are transmitted.

~~14~~13. Method according to any of claims 1 to ~~13~~12, wherein the receiver can generate a command to stop increasing of the bitrate, and wherein said second group of data packets are transmitted if transmission quality of said first group of data packets is above said first threshold and if the receiver has not provided a command to stop increasing of bit rate.

~~15. Computer server adapted to transmit data packets to a client computer and to receive data from the client computer, said computer server being adapted to implement a method according to any of claims 1-14.~~

14. Transmitter for transmitting data packets to a receiver, the transmitter comprising:

- a transmitter unit for transmitting (203) a first group of data packets with a first bitrate, the data packets of said first group comprising a first payload (P, P and C) having a specified number of bits, and
- a receiver unit for receiving information about the quality of transmission of said first group of data packets,
- the transmitter unit being adapted to generate and transmit (208-209) a second group of data packets with a second bitrate if transmission quality of said first group of data packets is above a first threshold, the data packets in said second group comprising said first payload (P, P and C) and additional control data (C1) allowing a receiver to check consistency of the delivered second group of data packets, whereby said second bitrate is higher than said first bitrate;
- the receiver unit further being adapted to receive information about the quality of transmission of said second group of data packets, and
- the transmitter unit further being adapted to transmit a third group of data packets with said second bitrate, if the transmission quality of said second group of data packets is above a second threshold, the data packets in said third group

comprising a second payload comprising more bits than said first payload, thereby increasing the bitrate of said second payload.

15. Receiver for receiving data packets from a transmitter, the receiver comprising:

- a receiver unit for receiving a first group of data packets with a first bitrate, the data packets of said first group comprising a first payload (P) having a specified number of bits, and

- a transmitter unit for transmitting information about the quality of transmission of said first group of data packets,

- the receiver unit being adapted to receive a second group of data packets with a second bitrate if transmission quality of said first group of data packets is above a first threshold, the data packets in said second group comprising said first payload (P) and additional control data (C1) allowing the receiver to check consistency of the delivered second group of data packets, whereby said second bitrate is higher than said first bitrate;

- the transmitter unit further being adapted to transmit information about the quality of transmission of said second group of data packets, and

- the receiver unit further being adapted to receive a third group of data packets with said second bitrate, if the transmission quality of said second group of data packets is above a second threshold, the data packets in said third group comprising a second payload comprising more bits than said first payload, thereby increasing the bitrate of said second payload.

16. Transmitter as claimed in claim 14, wherein the transmitter is in the form of a computer server which is adapted to implement the method as claimed in any of the claims 1 to 13.

17. Receiver as claimed in claim 15, wherein the receiver is in the form of a client computer which is adapted to implement the method as claimed in any of the claims 1 to 13.