

2 Programmers in a software development company take part in live video conferences to discuss their work.

The live video conferences take place using real-time bit streaming. The video is compressed before it is transmitted.

(a) Explain how data is transferred using real-time bit streaming.

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(b) (i) Explain the reasons why a video is compressed before it is transmitted using real-time bit streaming.

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(ii) Identify whether the lossy or lossless compression method is more appropriate for real-time bit streaming. Justify your answer.

Compression method

Justification

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[3]

(c) The video conference is accessed over the internet.

Complete the table by stating how modems **and** dedicated lines are used when data is transmitted over the internet.

Hardware	Use
modems
dedicated lines

[2]