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Impact of removal of RED/RTX workaround

This doc analyzes the removal of the RED/RTX workaround, as implemented by <https://codereview.webrtc.org/2469093003>. We compare the old sender and receiver (the ones where the workaround exists) to the new sender and receiver (the ones where the workaround has been removed). An additional dimension is given by the existence of FlexFEC in the different SDPs; this (non-)existence gives hints of the version of the sender/receiver to the other side.

Old sender

If RED is negotiated, all sent packets will be encapsulated in RED, even if ULPFEC is not negotiated.

Capabilities negotiated over SDP	Old receiver <i>If RED is negotiated, all received RTX packets will be assumed to carry RED.</i>	New receiver <i>Received RTX packets will be assumed to carry the payload type that was negotiated as apt.</i>
FlexFEC in neither SDP		
Media	Regular transmission.	Regular transmission.
Media/RED	RED is sent, so receiver workaround is correct.	RED is sent with correct apt, so the new receiver will correctly receive the RTX packets.
Media + ULPFEC	RED is disabled at sender, so ULPFEC will be too. Workaround will not be active at receiver, so RTX reception is correct.	RED is disabled at sender, so ULPFEC will be too. RTX will use the media as apt, so the new receiver will correctly receive the RTX packets.
Media/RED + ULPFEC/RED	RED is sent, so receiver workaround is correct.	RED is sent with correct apt, so the new receiver will correctly receive the RED-encapsulated RTX packets.
FlexFEC in receiver SDP but not sender SDP		
Media	N/A	Regular transmission.

Media/RED	N/A	RED will be sent, and restored correctly by new RTX receiver.
Media + ULPFEC	N/A	RED is turned off, and so is ULPFEC. The media RTX will be correctly received by the new RTX receiver.
Media/RED + ULPFEC/RED	N/A	RED will be sent, and restored correctly by the new RTX receiver.
FlexFEC in receiver and sender SDPs: N/A		

New sender

If FlexFEC is negotiated, RED and ULPFEC will be turned off at the sender. If FlexFEC is not negotiated, will use behaviour from old sender.

Capabilities negotiated over SDP	Old receiver <i>If RED is negotiated, all received RTX packets will be assumed to carry RED.</i>	New receiver <i>Received RTX packets will be assumed to carry the payload type that was negotiated as apt.</i>
FlexFEC in neither SDP		
Media	Regular transmission.	Regular transmission.
Media/RED	RED is sent, so receiver workaround is correct.	RED is sent with correct apt, so the new receiver will correctly receive the RTX packets.
Media + ULPFEC	RED is disabled at sender, so ULPFEC will be too. Workaround will not be active at receiver, so RTX reception is correct.	RED is disabled at sender, so ULPFEC will be too. RTX will use the media as apt, so the new receiver will correctly receive the RTX packets.
Media/RED + ULPFEC/RED	RED is sent, so receiver workaround is correct.	RED is sent with correct apt, so the new receiver will correctly receive the RED-encapsulated RTX packets.

FlexFEC in receiver SDP but not sender SDP		
Media	N/A	Regular transmission.
Media/RED	N/A	RED will be sent, and restored correctly by new RTX receiver.
Media + ULPFEC	N/A	RED is turned off, and so is ULPFEC. The media RTX will be correctly received by the new RTX receiver.
Media/RED + ULPFEC/RED	N/A	RED will be sent, and restored correctly by the new RTX receiver.
FlexFEC in receiver and sender SDPs This means that neither sender nor receiver has the workaround.		
Media	N/A	Regular media transmission with FlexFEC.
Media/RED	N/A	RED is turned off, and regular media transmission together with FlexFEC happens. RTX is sent using the media apt, and received correctly.
Media + ULPFEC	N/A	RED is turned off, and so is ULPFEC. Regular media transmission together with FlexFEC happens. RTX is sent using the media apt, and received correctly.
Media/RED + ULPFEC/RED	N/A	RED and ULPFEC are turned off, and regular media transmission together with FlexFEC happens. RTX is sent using the media apt, and received correctly.

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