



# Analyzing VOIP

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» What constitutes poor quality?

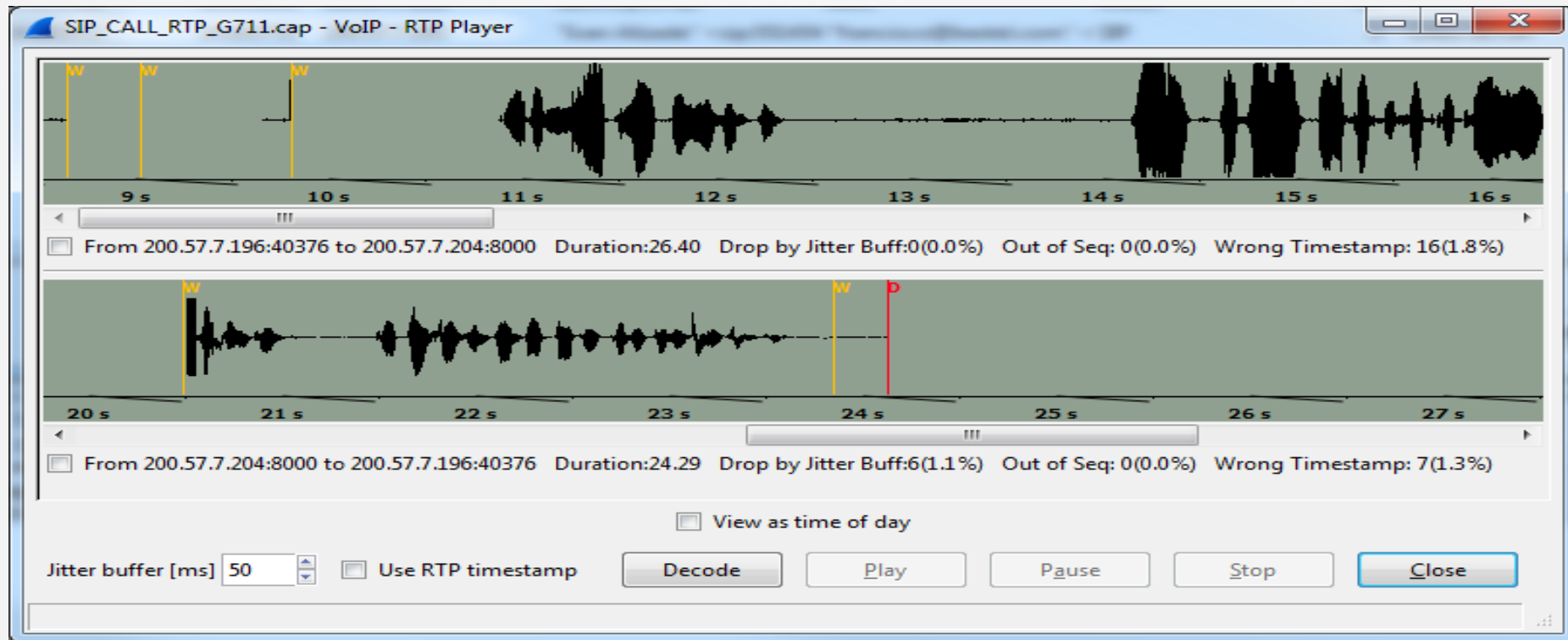
» How can Wireshark help?

- Analyze the flow of calls

» Wireshark tools

- View quality in the player
- Analyze response time in the Packets List or Flow Graph
- Use the Expert

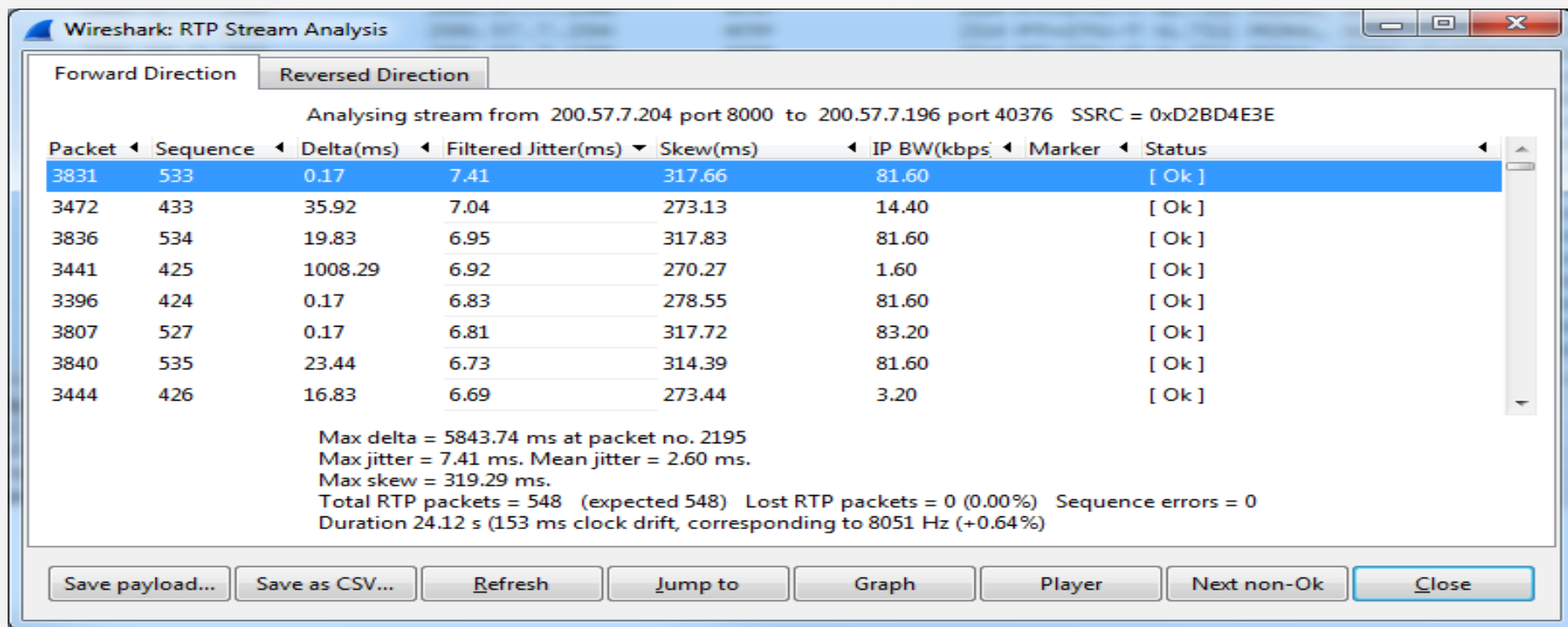
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- » **Wireshark can help locate problems in a VOIP network**
- » **Using Flow Graph**
  - Do we have packets that are being retransmitted?
- » **RTP stream analysis**
  - View out-of-order packets
  - View cancelled packets

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Wireshark: RTP Stream Analysis

Forward Direction | Reversed Direction

Analysing stream from 200.57.7.204 port 8000 to 200.57.7.196 port 40376 SSRC = 0xD2BD4E3E

Packet	Sequence	Delta(ms)	Filtered Jitter(ms)	Skew(ms)	IP BW(kbps)	Marker	Status
3831	533	0.17	7.41	317.66	81.60		[ Ok ]
3472	433	35.92	7.04	273.13	14.40		[ Ok ]
3836	534	19.83	6.95	317.83	81.60		[ Ok ]
3441	425	1008.29	6.92	270.27	1.60		[ Ok ]
3396	424	0.17	6.83	278.55	81.60		[ Ok ]
3807	527	0.17	6.81	317.72	83.20		[ Ok ]
3840	535	23.44	6.73	314.39	81.60		[ Ok ]
3444	426	16.83	6.69	273.44	3.20		[ Ok ]

Max delta = 5843.74 ms at packet no. 2195  
Max jitter = 7.41 ms. Mean jitter = 2.60 ms.  
Max skew = 319.29 ms.  
Total RTP packets = 548 (expected 548) Lost RTP packets = 0 (0.00%) Sequence errors = 0  
Duration 24.12 s (153 ms clock drift, corresponding to 8051 Hz (+0.64%))

Save payload... Save as CSV... Refresh Jump to Graph Player Next non-Ok Close

# Questions?