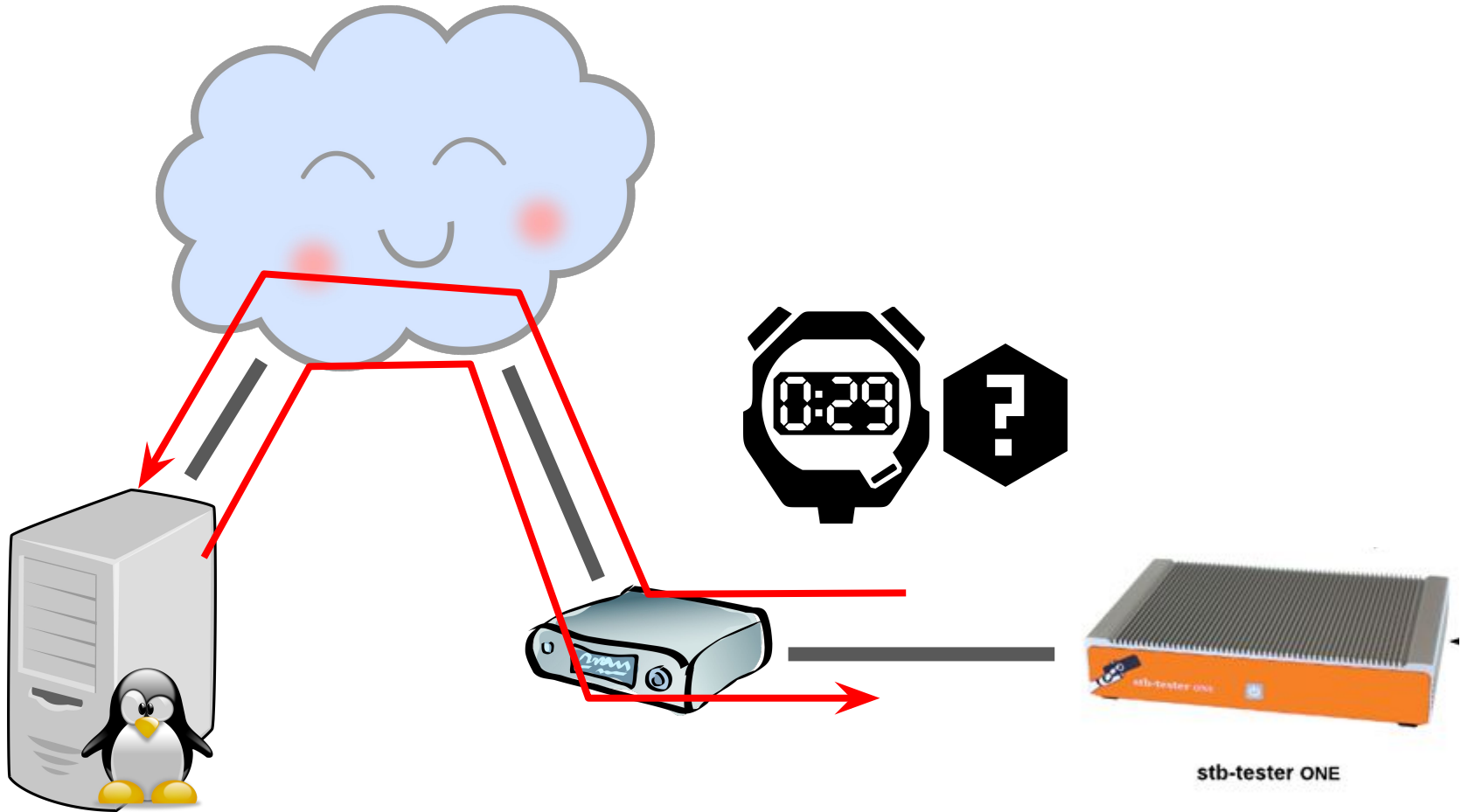


Measuring Video Capture Latency

with GStreamer, Raspberry Pi and Satellites

William Manley - stb-tester.com



stb-tester ONE



**High Accuracy
High Precision**



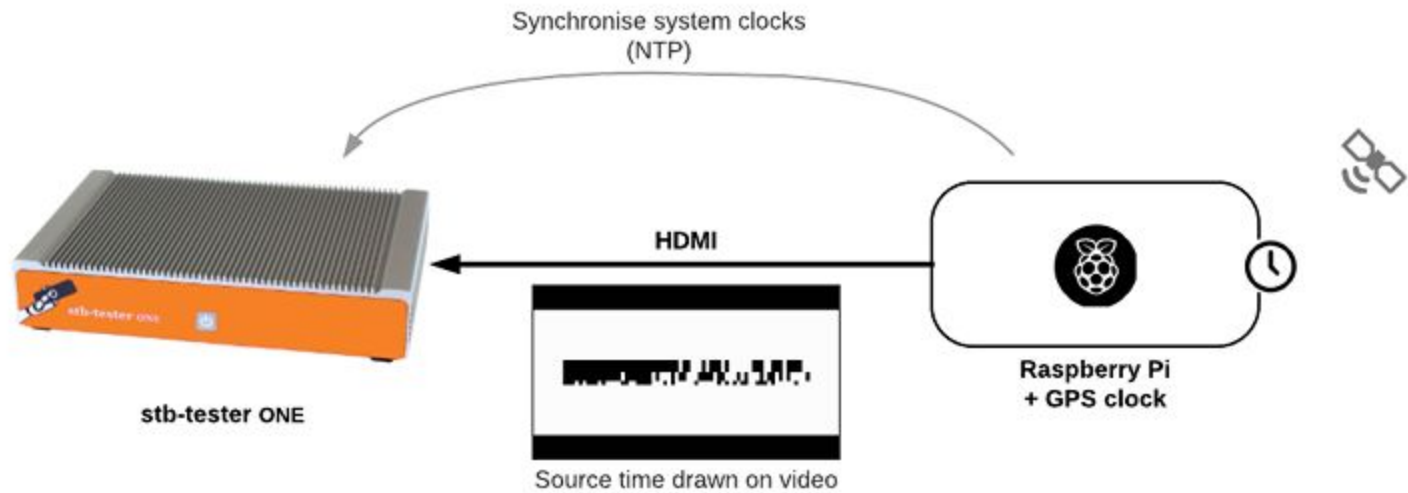
**Low Accuracy
High Precision**



**High Accuracy
Low Precision**



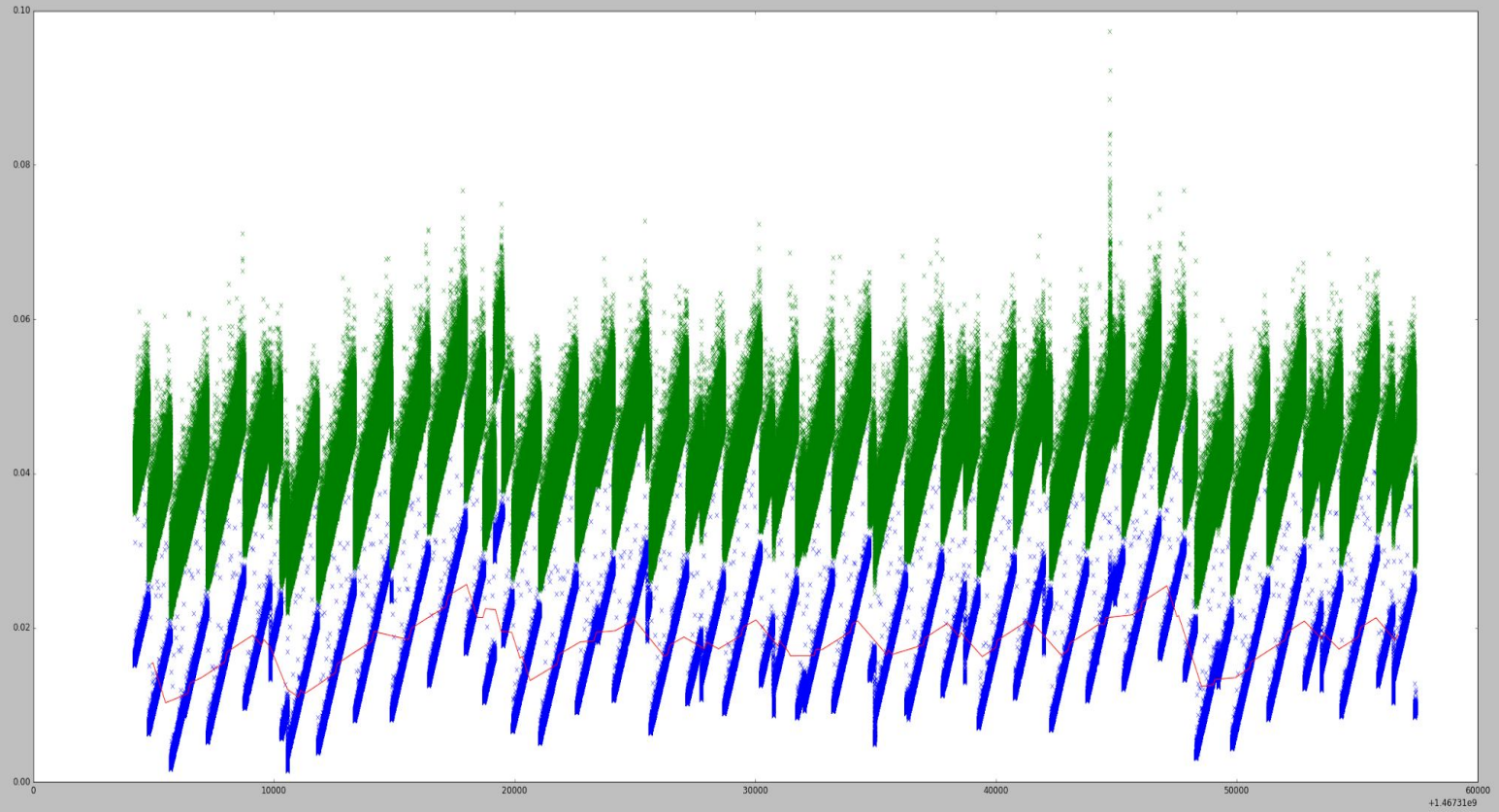
**Low Accuracy
Low Precision**

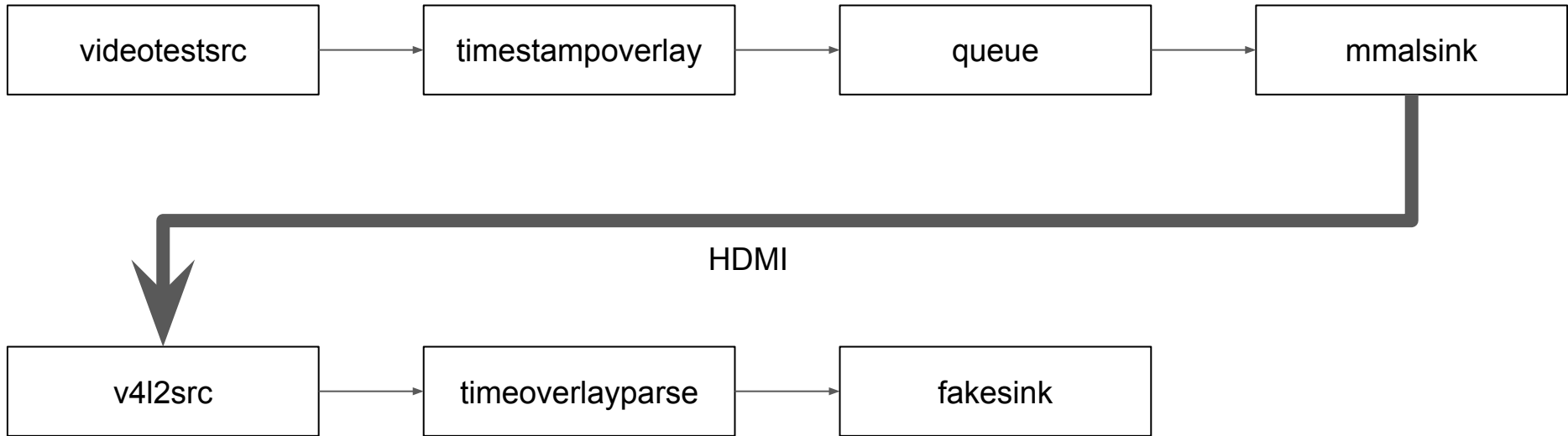


Timestamp	<code>GST_BUFFER_TIMESTAMP(buffer)</code>
Stream time	<code>gst_segment_to_stream_time(segment, timestamp)</code>
Running Time	<code>gst_segment_to_running_time(segment, timestamp)</code>
Clock Time	Running time + <code>gst_element_get_base_time(element)</code>
Render Time	Clock Time + latency
Render Realtime	<code>gst_clock_unadjust(realtime_clock, render_time)</code>



Figure 1





See Also

Blog Post on this: <https://stb-tester.com/blog/2016/07/05/latency-measurements>

How to build a GPS NTP server with the Raspberry Pi:

<http://ava.upuaut.net/?p=726>

Overlay and parsing GStreamer elements:

<https://github.com/stb-tester/latency-clock>