

MPEG-DASH

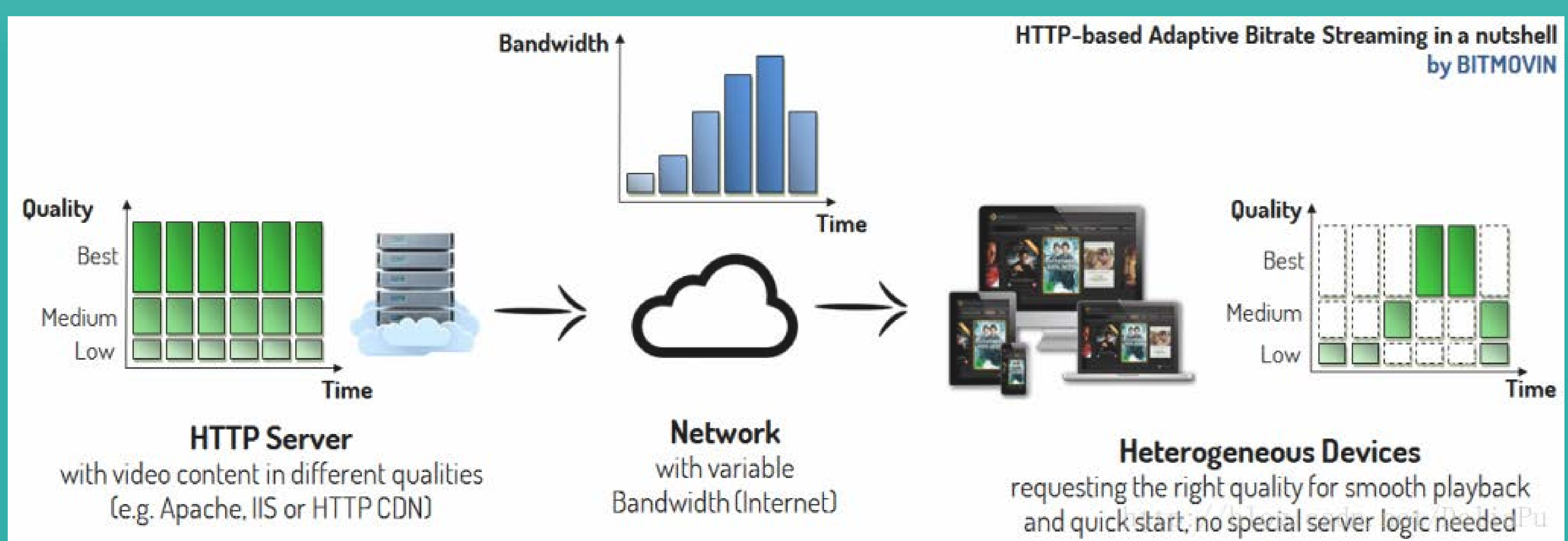
Live Streaming in an Unstable Environment

WHAT IS MPEG-DASH?

MPEG-DASH is an adaptive bitrate streaming protocol that measures the client's network traffic and adapts the streaming quality accordingly.

HOW DOES IT WORK?

The server breaks the input stream into segments and saves each segment in different qualities. The client then request the quality which suits him best.

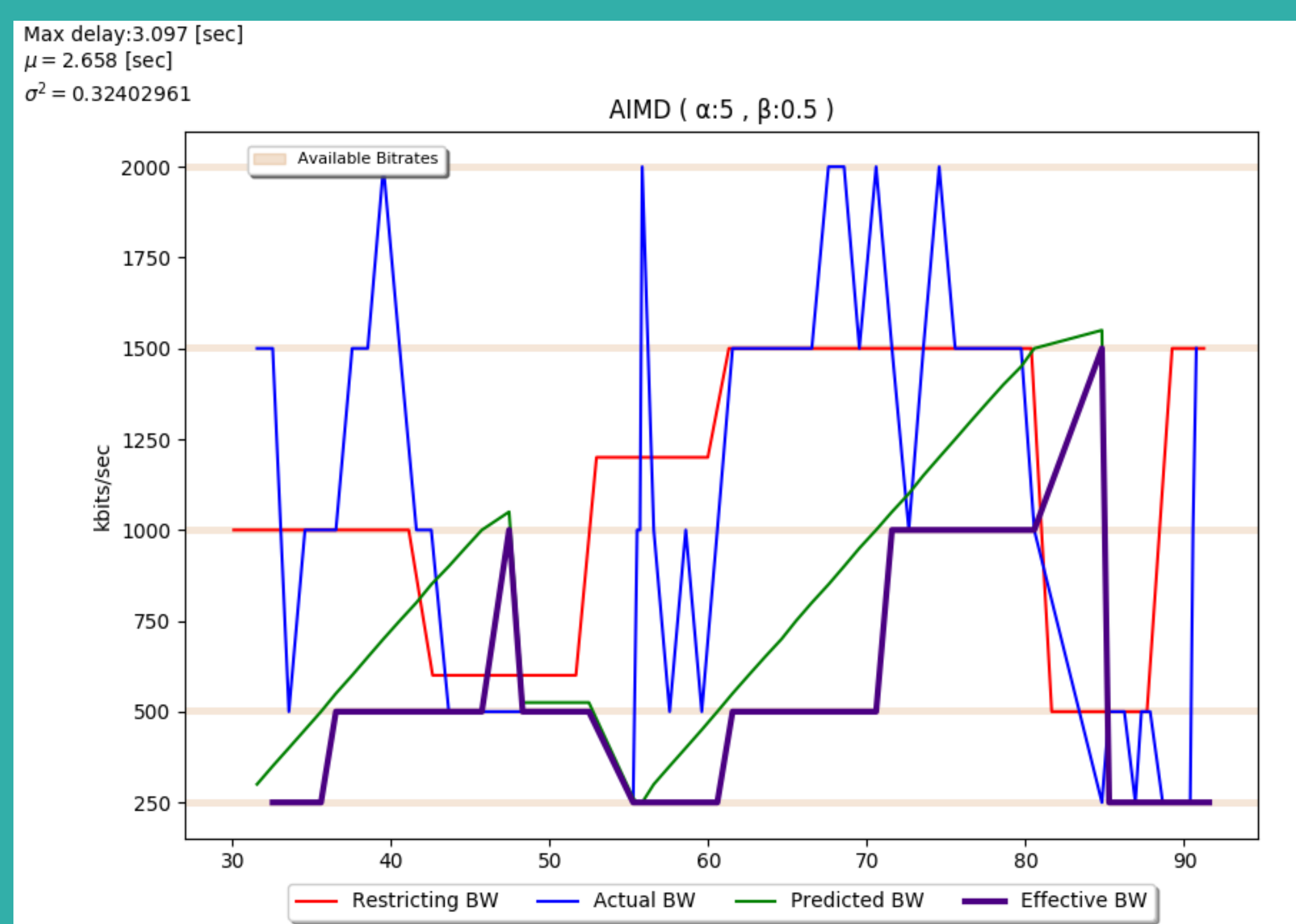


OUR RESEARCH

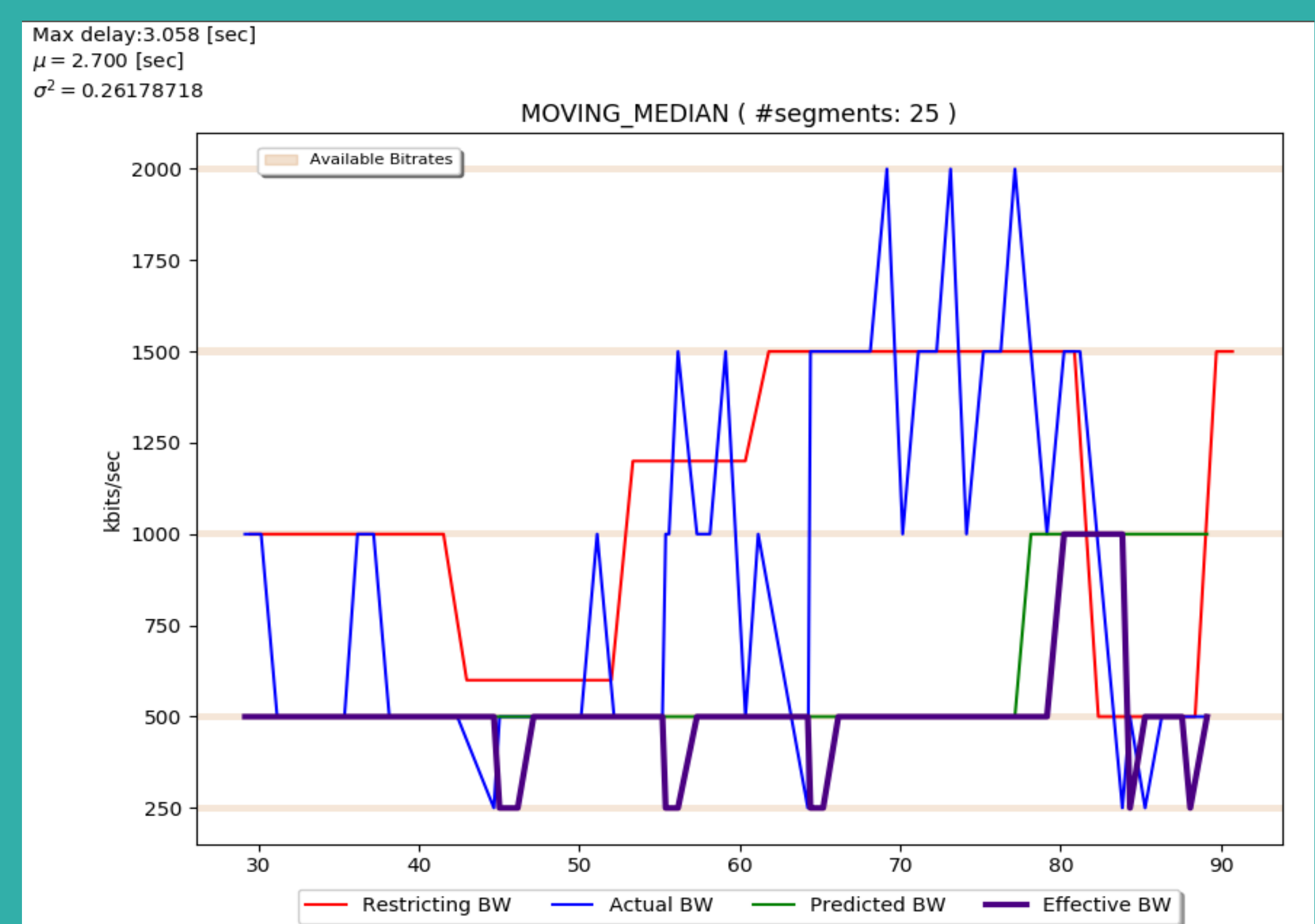
We implement multiple algorithms in order to receive the best quality while maintaining minimum delay.

In our research we compare between the algorithms and decide which algorithm is best suited to the client's network based on our analysis.

AIMD ALGORITHM



MOVING MEDIAN ALGORITHM



- Restricting BW — Forced limit on the client's download rate (using NetEM)
- Actual BW — Download rate of the last segment
- Predicted BW — Download rate predicted by the chosen algorithm
- Effective BW — Requested stream bitrate from the server

The horizontal lines represent all the available stream bitrates on the server