Progress made towards Validating the Model

Week VI Presentation

Santwana Verma
Supervisor: Prof Shivendra Panwar

3rd day of July'18

The Claim

- **Intermittent link**
- **Bandwidth** underestimated
- **RTT** underestimated
- Thus underestimating throughput

Low Delay and High Variations

Parameters Chosen:

- Rate: 1mbps
    - Delay: 1ms
    - Variations: 5ms, 10ms, 30ms
- Rate: 100mbps
    - Delay: 1ms
    - Variations: 5ms, 10ms, 30ms

Progress towards validating the claim

- With **Rate: 1mbps, Delay: 1ms, Variations: 5ms, 10ms and 30ms**
- **Assumption**: Small Variation: 5ms, Large Variation: 30ms

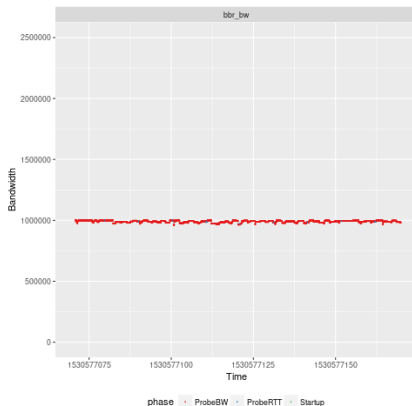# Rate: 1mbps, Delay: 1ms, Variation: 5ms

Figure: Estimated Bandwidth

Mean Estimated Bandwidth: 1325984 bps (i.e **1.33mbps**)

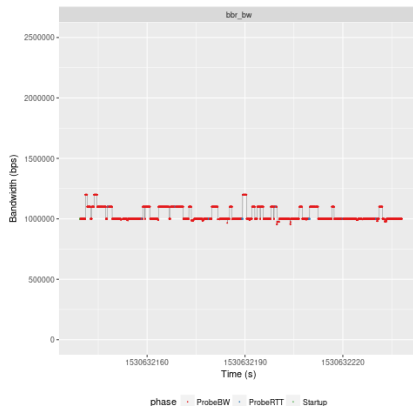# Rate: 1mbps, Delay: 1ms, Variation: 10ms

Figure: Estimated Bandwidth

Mean Estimated Bandwidth: 1033748 bps (i.e **1.03mbps**)

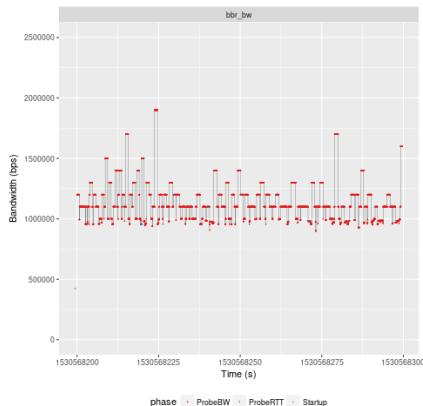# Rate: 1mbps, Delay: 1ms, Variation: 30ms

Figure: Estimated Bandwidth

Mean Estimated Bandwidth: 1651487 bps (i.e **1.65mbps**)

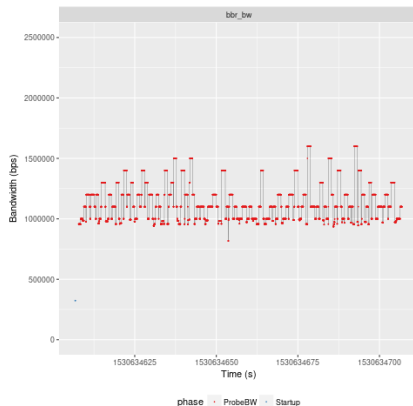# Rate: 1mbps, Delay: 1ms, Variation: 30ms

Figure: Estimated Bandwidth

Mean Estimated Bandwidth: 1150511 bps (i.e **1.15mbps**)

Progress towards validating the claim

- With **Rate: 100mbps, Delay: 1ms, Variations: 5ms, 10ms and 30ms**

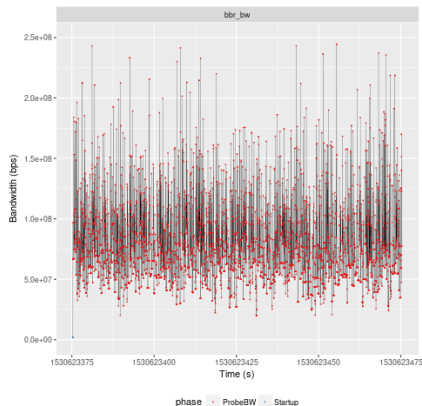# Rate: 100mbps, Delay: 1ms, Variation: 5ms

Figure: Estimated Bandwidth

Mean Estimated Bandwidth: 72715405 bps (i.e **72.71mbps**)

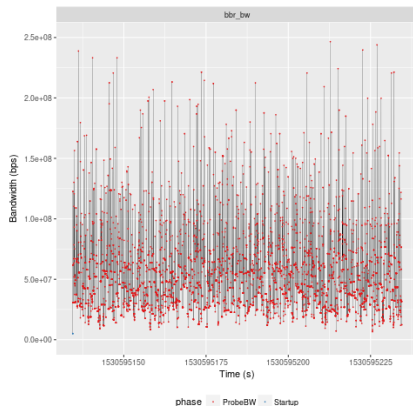# Rate: 100mbps, Delay: 1ms, Variation: 10ms

Figure: Estimated Bandwidth

Mean Estimated Bandwidth: 50683558 bps (i.e **50.66mbps**)

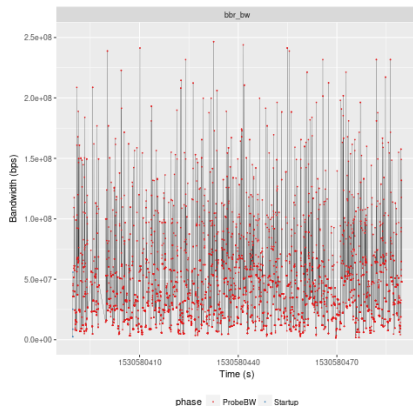# Rate: 100mbps, Delay: 1ms, Variation: 30ms

Figure: Estimated Bandwidth

Mean Estimated Bandwidth: 43261516 bps (i.e **43.26mbps**)

Work for immediate future

- Two different rate, two different patterns.
- Vary rate with more values of delay in between to validate that bandwidth is underestimated.
- Validate that RTT is underestimated.

Thank You!
Questions and Suggestions!