

Small-Proof Big-Data Benchmark Result

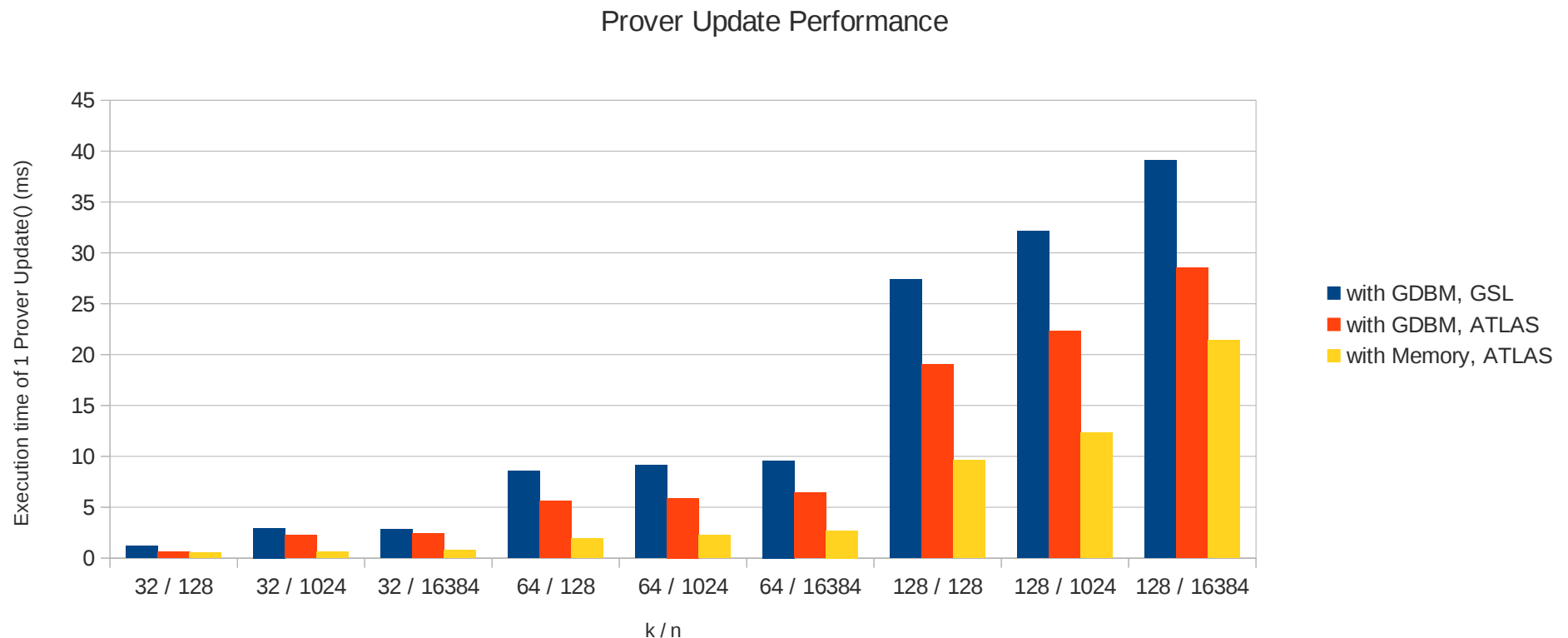
5/19/2013

Benchmark Result

- Input to Prover/Verifier
 - # of Updates: 10000
 - # of Queries: 1000
- Summary
 - ATLAS library enhances Update() performance by up to 50%, but still too slow.
 - Prover Update() takes 21.4ms
Verifier Update() takes 14.6ms (k=32, n=16384)

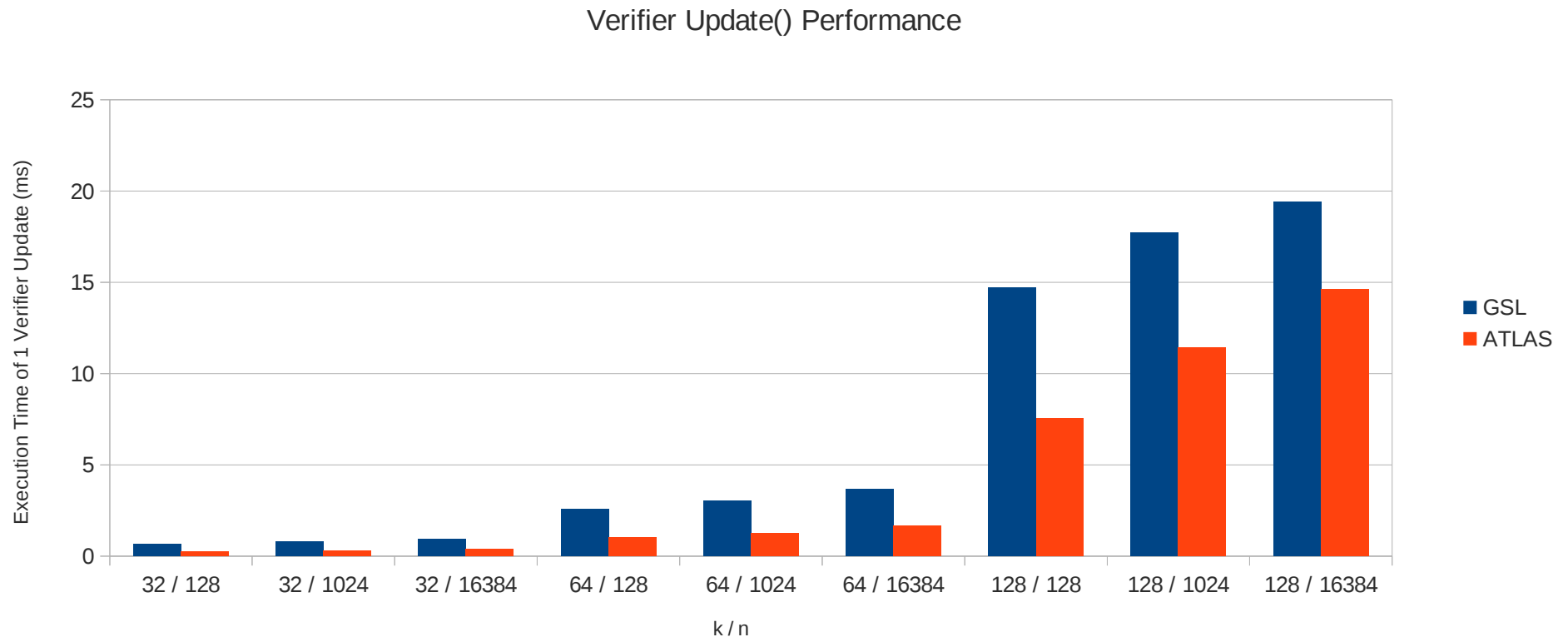
Prover Update()

- Time taken by Google Analytics Server to process 1 input (Visit counting by IP address)



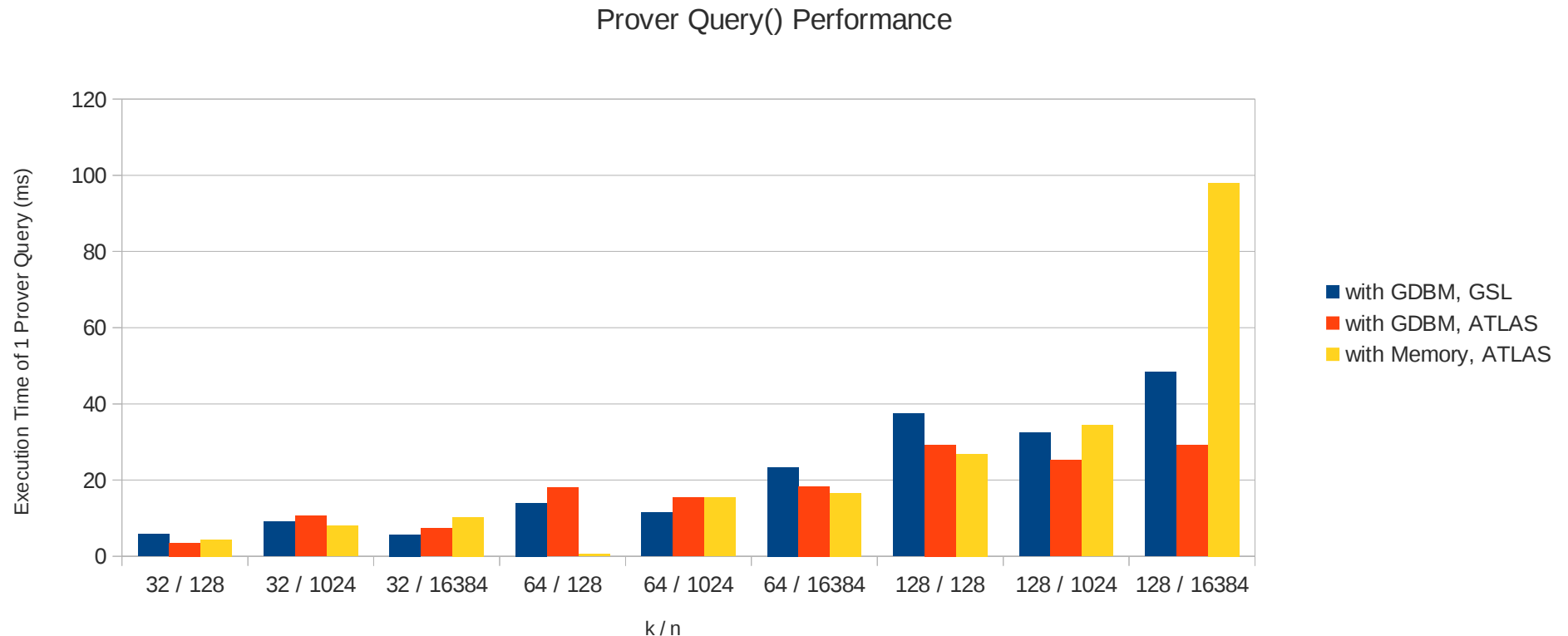
Verifier Update()

- Time taken by Web Server to process 1 query and generate a proof (Visit by IP address)



Prover Query()

- Time taken by Google Analytics Server to process 1 query (Visit counting by IP address)



Prover Verify()

- Time taken by Web Server to verify 1 proof (Visit by IP address)

