

A night sky with the Milky Way galaxy visible, stretching across the frame. A person is sitting on a rock in the foreground, looking up at the stars. The text 'arm' is on the left and 'zlib optimizations for Arm' is on the right.

arm

zlib optimizations for Arm

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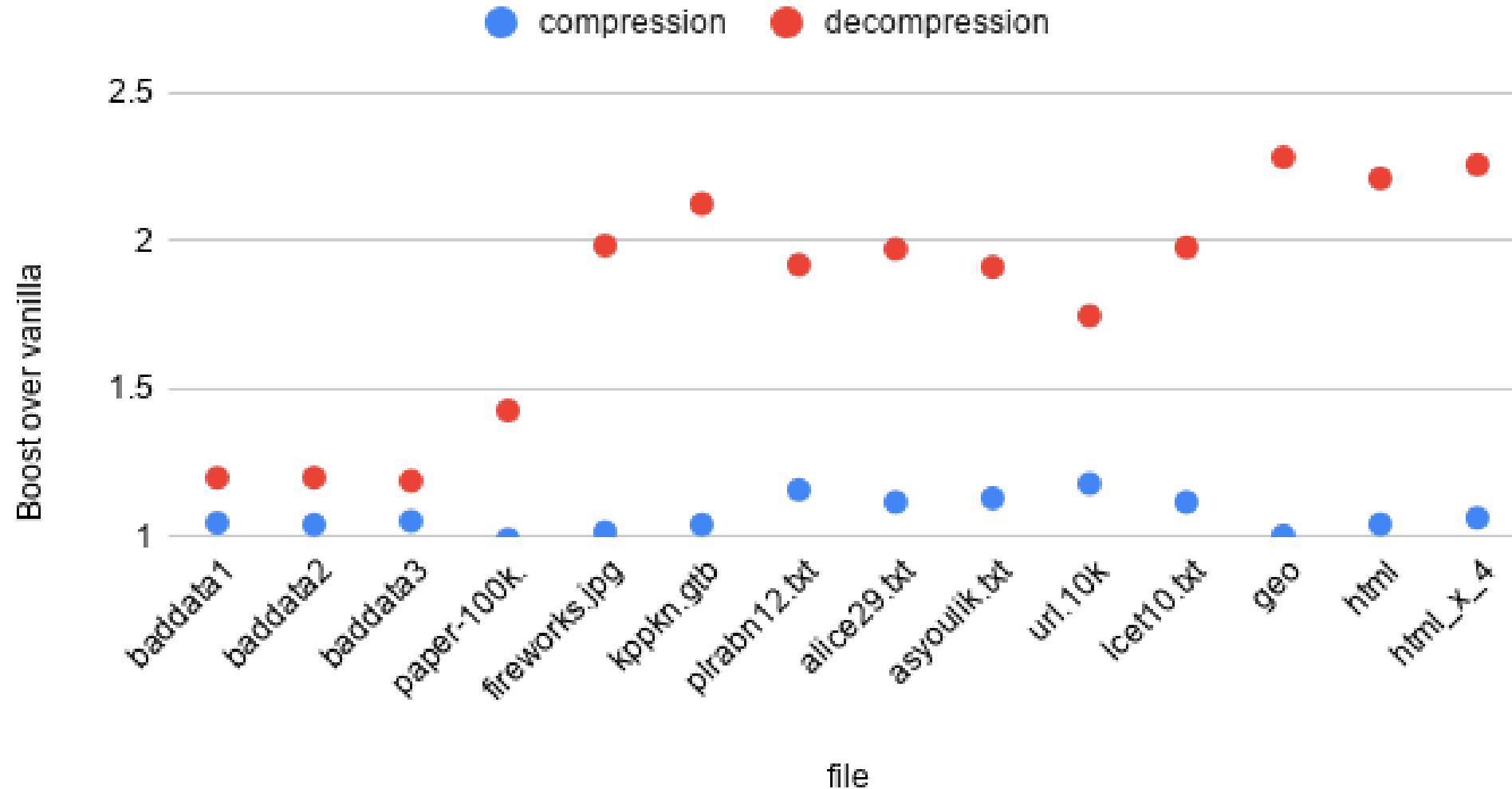
2019-11-1

zlib: where is it used?

- Network operations (i.e. content-encoding: gzip).
- PNG decoding.
- Data compression.

zlib@arm: Decompression (up to 120%), compression (+10% to 36%)

aarch64: Gzip format improvement



Chromium zlib: where is it used?

- Chronet: Chromium network library – used in other projects, e.g. Gsuite apps.
- Android migration to Chromium's zlib
(<https://android.googlesource.com/platform/external/zlib>)

Optimizations **enabled** new use-cases

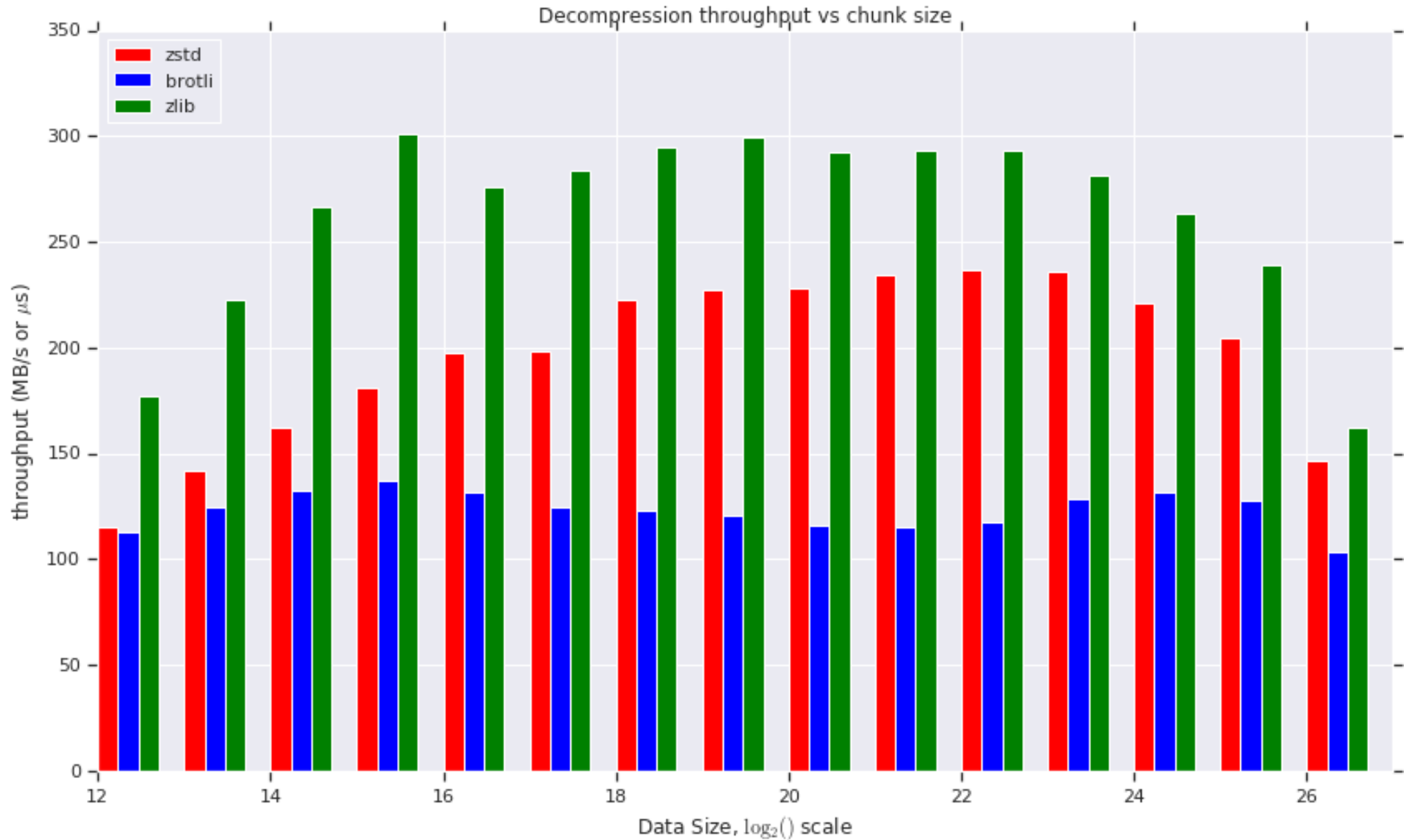
- Javascript [source](#) strings [compression](#)
- V8 compressed [snapshots](#)
- Chromium [JS/HTML](#) resource.pak

https://chromium.googlesource.com/chromium/src/third_party/zlib

Questions?



Benchmark on Pixel3XL (crbug/912902)



Benchmark on x86 (crbug/912902)

