arm zlib optimizations for Arm

Adenilson Cavalcanti
Chromium team @Arm
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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%)
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](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](https://chromium.googlesource.com/chromium/src/third_party/zlib)
Benchmark on Pixel3XL (crbug/912902)
Benchmark on x86 (crbug/912902)

Decompression throughput vs chunk size

 throughput (MB/s or μ/s)

Data Size, log_2() scale

zstd
brotli
zlib