

Enable Text Compression

Overview

Text compression minimizes the byte size of network responses that include text content. Less bytes downloaded means faster page loads.

Recommendations

Lighthouse lists each response that was sent without text compression. Enable text compression on the server(s) that served these responses in order to pass this audit.

Note: The potential savings that Lighthouse lists are the potential savings when the response is encoded with GZIP. If Brotli is used, even more savings are possible.

How browsers and servers negotiate text compression

When a browser requests a resource, it lists what text compression encodings it supports in the `accept-encoding` request header. All modern browsers do this. The server encodes the response in one of the formats that the browser supports and indicates which format it used in the `content-encoding` response header.

See [Optimizing Encoding and Transfer Size of Text-Based Assets](#) to learn more.

How to enable text compression on your server

Configure your server to compress the response with [Brotli](#), if the browser supports it. Brotli is a newer compression format, but it's not universally supported in browsers. Do a search for "how to enable Brotli compression in <server>" to learn how to implement it, where <server> is the name of your server.

Use GZIP as a fallback to Brotli. GZIP is universally supported in all modern browsers, but is less efficient than Brotli. See [Server Configs](#) for examples.

Check if a response was compressed in Chrome DevTools

To check if a server compressed a response:

1. Go to the **Network** panel in DevTools.
2. Click the request that caused the response you're interested in.
3. Click the **Headers** tab.
4. Check the content-encoding header in the **Response Headers** section.

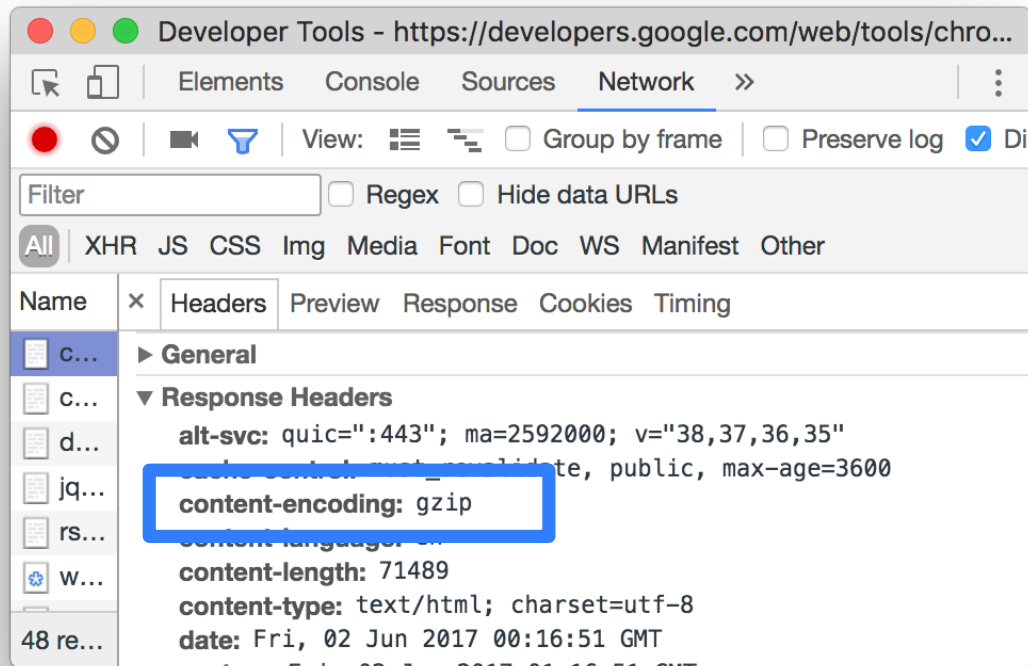


Figure X: The content-encoding response header

To compare the compressed and de-compressed sizes of a response:

1. Go to the **Network** panel.
2. Enable large request rows. See [Use large request rows](#).
3. Look at the **Size** column for the response you're interested in. The top value is the compressed size. The bottom value is the de-compressed size.

More information

Lighthouse gathers all responses that:

- Have text-based resource types.
- Do not include a `content-encoding` header set to `br`, `gzip`, or `deflate`.

Lighthouse then compresses each of these with GZIP to compute the potential savings.

Note: If the original size of a response is less than 1.4KB, or if the potential compression savings is less than 10% of the original size, then Lighthouse does not flag that response in the results.

Feedback

Was this page helpful?

YES

NO

Great! Thank you for the feedback.

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