

Review Performance for 2024

1.1. Context

Tiki is over 20 years old. Web technologies evolve and tradeoffs change. Ex.: Sending a lot of small files used to be bad because of connection overhead, but things are different with [HTTP/2](#). Let's review [Tiki26](#) with [Tools to evaluation website performance](#), and proceed with relevant recommendations. The last time we did this was [Tiki23 dogfood performance](#).

This will review not just the Tiki feature set, but also how it's configured in real life. We'll start on this once Tiki 26.0 has been released. We always want to be ready for the [Tiki Performance Challenge](#).

1.2. Technology changes

- [PHP8](#)
- [HTTP/2](#)
- <https://wikisuite.org/blogpost16-WikiSuite-will-now-support-all-major-Linux-distros> So Debian 11 with Virtualmin 7 instead of ClearOS 7.

1.3. URLs to test

- <https://themes.tiki.org/Template-Tricks>
- <https://doc.tiki.org/Requirements> (once running 26x)
- <https://dev.tiki.org/Get-code> (once running 26x)
- <https://tiki.org/Participate> (once running 26x)
 - Please note that this is on a different server than 3 other sites

1.4. Team

- Boss (developer)
- Adrien (developer)
- Marc (advisor)
- mose (advisor mostly for server aspects)
- Gary (advisor mostly for HTML/CSS aspects)
- Jonny (advisor mostly for HTML/JavaScript aspects)
- Benoit (advisor)
- Victor (advisor)

1.5. Process

1. Update / review list of [Tools to evaluation website performance](#)
2. Use the tools, research and experiment, to establish potential opportunities (Add below)
3. Ask advice from experienced community members
4. Implement solution

1.6. Todos

- Set up next servers so we can easily (Marc, Horia, mose)
 - compare stable branch vs trunk/master
 - play with various configurations/preferences without disrupting production

1.7. Potential opportunities / Action items

1.7.1. Stop including external CSS from themes.tiki.org

Some tiki.org sites include this custom HTML

```
<!-- Shared *.t.o sites CSS mainly for the "colored blobs" on sister-site links --> <link rel="stylesheet"
href="https://themes.tiki.org/tiki-index_raw.php?page=Tiki_org_family_customizations_CSS&clean&tex
tonly&download&css" type="text/css"> <link rel="stylesheet"
href="https://themes.tiki.org/tiki-index_raw.php?page=Tiki_org_family_headers_fix_CSS&clean&texton
ly&download&css" type="text/css">
```

Data should be stored on each site, and cached. Look into a way to keep data in sync. Check with Victor who has a related Tiki Federation task for this.

1.7.2. CacheTTL

1.7.2.1. System files

This is for non-data files. Either tracked in Git, or generated on the fly.

- <https://gtmetrix.com/reports/themes.tiki.org/Q7TJbnPB/>
- <https://gtmetrix.com/serve-static-assets-with-an-efficient-cache-policy.html>
- <https://developer.chrome.com/docs/lighthouse/performance/uses-long-cache-ttl/>
- <https://avan.tech/item61486-Performance-gtmetrix-com-and-webpagetest-org-Make-WikiSuite-Virtualmin-default-install-work-OK-for-Leverage-browser-caching-of-static-assets>

A sensible default should be set for the WikiSuite installer (and offered to Virtualmin)

Virtualmin: Search for "Configure Apache Modules", then activate the "expires" module (Apache mod_expires).

2023-07-01: I activated for the server that hosts <https://themes.tiki.org/>

1.7.2.2. Data files

This is for files (including images) managed by Tiki File Gallery (could be in DB or file system) that are accessible to anonymous users

- <https://avan.tech/item15018-Performance-Should-images-visible-to-anonymous-but-served-by-Tiki-be-on-the-CDN>
- <https://avan.tech/item15015-Performance-Add-Expires-headers-on-images-generated-by-Tiki>

1.7.3. Brotli

- <https://yellowlab.tools/result/gm3jr53lds>
- <https://caniuse.com/brotli>
- <https://w3techs.com/technologies/details/ce-brotlicompression>
- <https://avan.tech/item58346-Evaluate-Brotli-for-Virtualmin-WikiSuite>
- <https://blog.cloudflare.com/this-is-brotli-from-origin/>

A sensible default should be set for the WikiSuite installer (and offered to Virtualmin)

It is a bit like HTTP/2:

<https://github.com/virtualmin/Virtualmin-Config/commit/9c28adfe700e164bdd5c0e06fcbc2e311cea51cc>

Idea: Add to Virtualmin by default. If browser/server doesn't support Brotli, it reverts to Gzip. So we can have some conditional instructions in https://gitlab.com/tikiwiki/tiki/-/blob/master/_htaccess

1.7.4. Add Last-modified and Etag to HTTP headers for wiki pages

https://caniuse.com/mdn-http_headers_etag

Configure https://gitlab.com/tikiwiki/tiki/-/merge_requests/2010

2023-07-01: I activated on <https://themes.tiki.org/tiki-admin.php?page=performance>

1.7.5. Set up CDN

Let's set up along the pattern of cdn.themes.tiki.org as per <https://doc.tiki.org/Content-delivery-network>

What is performance gain?

And then, modernize the documentation so any community member can do it.

Once it works, we can look into subscribing to a dedicated CDN service like CloudFront, CloudFlare, Fastly, [BunnyCDN](#), etc.

<https://avan.tech/item61485-Put-all-our-public-sites-on-CDN-and-perhaps-private-sites-as-well>

1.7.6. zlib.output_compression

- should it be activated by default?
- <https://www.php.net/manual/en/zlib.configuration.php>
- https://avan.tech/item93563-zlib-output_compression-should-it-be-activated-by-default
- Manually activated by Marc for server running themes.tiki.org, doc.tiki.org (and soon dev.tiki.org)

1.7.7. Boomerang code is not minified

- [Real User Measurement](#)
- <https://avan.tech/item93566-Boomerang-Real-User-Measurement-JS-and-CSS-code-is-not-minified>