Offline-first for Your Static Site

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What's a static site?
What's a static site?
What's offline-first?
What's offline-first?

Seen people suggest "offline-first" refers to development order, and you prioritise users-with-caches over first-visitors. Naw...

"Offline first" is a serving strategy. Get as far as you can with local data before going to the network.

(serve-)offline-(content-)first.
Why offline-first?
<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Time</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>ifixit-pwa.appspot.com</td>
<td>6.2 KB</td>
<td>423 ms</td>
<td></td>
</tr>
</tbody>
</table>

Why offline first?

<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Time</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>ifixit-pwa.appspot.com</td>
<td>(from ServiceWorker)</td>
<td>5 ms</td>
<td></td>
</tr>
</tbody>
</table>
What's a service worker?
A network proxy, written in JavaScript, running in your browser.
What are my options for making a static site offline-first?
Option 1:
Full-page caching
Full-page caching

Real-world example

https://paul.kinlan.me
Full-page caching

Benefits

- Service worker simplicity.
- Minimal deployment overhead.
- No content duplication.
- Works well with multiple layouts.
Full-page caching

**Drawbacks**

- Cache overhead.
- Messy updates.
Option 2:
App Shell
App Shell

Real-world example

https://ifixit-pwa.appspot.com
App Shell

Benefits

- Clean updates.
- Low-overhead precaching.
App Shell

Drawbacks

● Routing logic in your service worker.

● Duplication of content and routes.
Option 3: Service worker templating
Service worker templating

Real-world example

https://jeffy.info
Service worker templating

Benefits

- Clean updates.
- Low-overhead precaching.
- No Single Page App (SPA) required.
Service worker templating

**Drawbacks**

- Requires a JavaScript-friendly templating system.
- Heavyweight service worker code.
- Routing logic in your service worker.
- Duplication of content and routes.
Thanks!

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