

# PRPL Pattern

## What is PRPL?

PRPL is a website architecture developed by Google for building websites and apps that work exceptionally well on smartphones and other devices with unreliable network connections.

<https://developers.google.com/web/fundamentals/performance/prpl-pattern/>

PRPL stands for:

- **Push** critical resources for the initial URL route using `<link preload>` and HTTP/2.
- **Render** initial route.
- **Pre-cache** remaining routes.
- **Lazy-load** and create remaining routes on demand.

***Note** HTTP/2 Server Push is a developing server technology and not available on most hosts just yet.*

## Gatsby and PRPL

Gatsby follows the PRPL architectural pattern. Gatsby sites *render* a static HTML version of the initial route and then load the code bundle for the page. Then immediately starts *pre-caching* resources for pages linked to from the initial route. When a user clicks on a link, Gatsby creates the new page *on demand* on the client.

This issue written at the start of Gatsby's 1.0 work provides further background on how Gatsby works to guarantee high performance.

<https://github.com/gatsbyjs/gatsby/issues/431>

This blog post also covers how we think about performance — Web Performance 101—also, why is Gatsby so fast?