Engineer Software

Built the Next.js 16 frontend: SSR, SSG and CSR

Built the Next.js 16 frontend with deliberate SSR, SSG and CSR strategies, and a reusable prefetched-server-page factory that removes the N+1 fetch cascade from each authenticated page moved onto it.

2025

the fetch cascade removed from migrated pages

Situation. The authenticated dashboard needed to feel quick and stay genuinely interactive, and those two goals pull against each other if you're naïve about it. Fetch everything on the client and the first load drags, and worse, you get the N+1 pattern where every component wakes up and fires its own request, so a single page turns into a cascade of round-trips.

Task. Each part of the app needed rendering the way that actually suited it, without giving up the client-side interactivity where it mattered.

Action. The Next.js 16 frontend uses the right mode per surface instead of one blanket choice. Marketing and public pages are statically generated — they don't change per user, so there's no reason to render them on every request. The genuinely interactive parts stay client-rendered. And where the N+1 cascade actually bites — the authenticated dashboard and the big directory listings — the fix was factored rather than hand-rolled: createPrefetchedServerPage fetches the page's data on the server and hands it to the client already populated, so the components come up with their data instead of each going off to ask for it. A cache-invalidation strategy is documented for each data request, so data stays fresh without the app re-fetching things it already has.

Result. The pages moved onto the factory come up in one round-trip instead of a storm of them, and because it is a factory rather than a pattern people copy by hand, the next page moved over inherits the behaviour for free. The rest

of the authenticated app is still client-rendered and still queued behind it — a migration with a working mechanism and an obvious next page, rather than a finished sweep.

Bring this experience to your project

Use “Built the Next.js 16 frontend: SSR, SSG and CSR” as a starting point for a similar challenge in your organisation. The services behind this work are available for your project. Interfaces that load quickly, work on a phone and behave the same in every browser your customers happen to use.

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Look behind the result

Read the situation, decisions and result in this example. We can discuss which parts transfer to your constraints and which need another approach. Built the Next.js 16 frontend: SSR, SSG and CSR — the fetch cascade removed from migrated pages

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Need a fast, modern web frontend?

Talk through your project with the engineer responsible for delivery. We agree the scope, price basis and handover in writing before work begins.

Role context: Full Stack Engineer. It draws on Platform Architecture, Frontend Engineering, Full-Stack Development, Web Development and Performance Tuning. And while you are here, we are rather good at Frontend Development, Full-Stack Product Development and Website Development & CMS.

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One piece of **a longer record** — and it is all on this site.

Every entry is written the same way: the situation, the task, what we did and what changed.

See the whole record

Define the improvement you need

Describe the workflow, the existing interfaces and the users who need the change. We can define a testable delivery and a handover that lets your team maintain it.

See what it costs Get in touch →

Need a fast, modern web frontend?

Ask about the decisions behind “Built the Next.js 16 frontend: SSR, SSG and CSR”. You will speak with the people who can explain the work and assess your own project.

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