

CompanyNavigator

Technical Overview

Built for fast navigation across one million company records.

1,000,000

company records prepared for high-performance search and virtualized browsing

.NET 9

ASP.NET Core

Blazor Server

PostgreSQL

Linux ready

Fast first impression

Live backend progress while the user interface is already available.

Virtualized browsing

The browser receives only the visible row window – never the full dataset.

Measured strategy

Baseline first, optimizations afterwards – transparent and comparable.



What the backend delivers

A focused search engine for large company datasets – built for speed, clarity and scale.

Compact search snapshot

The backend prepares a fast in-memory representation of the relevant company fields for filtering, sorting and paging.

Lazy detail loading

Large enrichment data, long texts, screenshots and heavy technical payloads remain in PostgreSQL and are loaded only when needed.

Virtual grid protocol

Search returns IDs first. Rows are requested separately in bounded windows for smooth navigation across huge datasets.

Live readiness

The frontend remains responsive while the backend builds its working snapshot and reports real progress.

1 Filter → 2 Sort → 3 Page IDs → 4 Load Rows → 5 Render

FOR BUSINESS USERS

Responsive company search, clear progress feedback and no visible freezes during ordinary navigation.

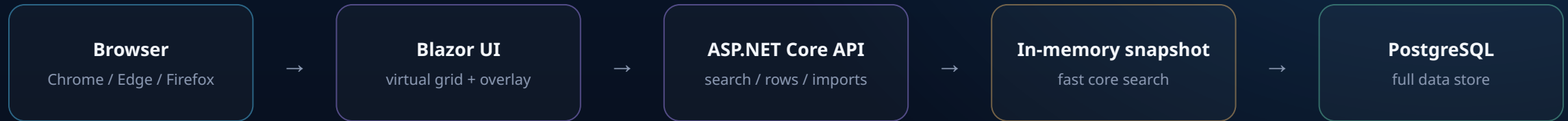
FOR TECHNICAL REVIEWERS

A measurable pipeline: compact index first, then optional prepared sort orders and bounded result cache.

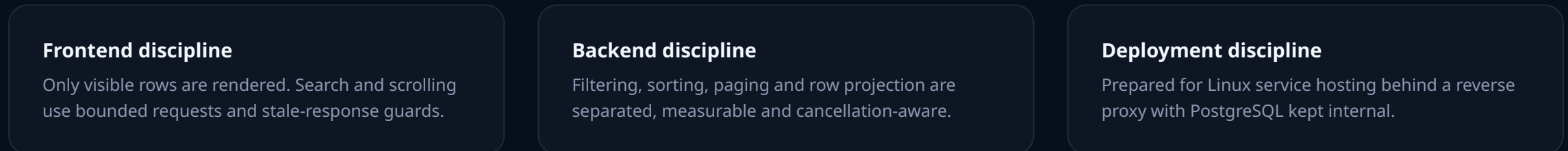
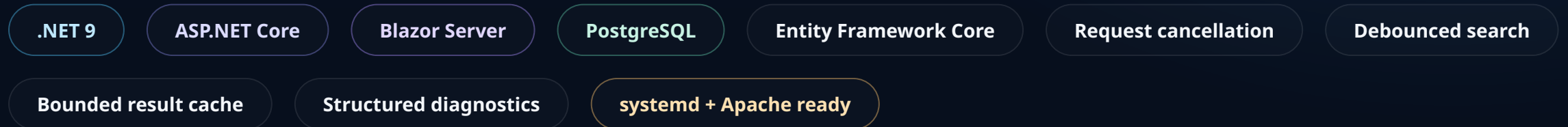
ARCHITECTURE

Modern stack, clean separation

A browser-friendly frontend backed by a dedicated .NET API and PostgreSQL storage.



TECHNOLOGY HIGHLIGHTS



Baseline first. Optimize only what matters.

The demo remains honest: measure the compact core before adding accelerators.

Baseline

Requested reference measurement

- Compact in-memory index
- No prepared sort orders
- No result-cache acceleration
- Ordinary filtering, sorting and paging
- Comparable measurements on real server

Optimized

Prepared as a switch – extended step by step

- Same data basis as Baseline
- Optional prepared sort orders
- Bounded cache for repeated filtered scrolling
- No premature complexity
- Activated only when measurements justify it

Thursday demo highlights



1M records

Large dataset without
overwhelming the browser



Readiness overlay

Live startup progress with
premium UX



Virtual grid

IDs first, rows second, smooth
windowed loading



Future proof

Keyword chips, compact index and
detail loading roadmap