Micro Frontends

How to evolve to an extensible frontend

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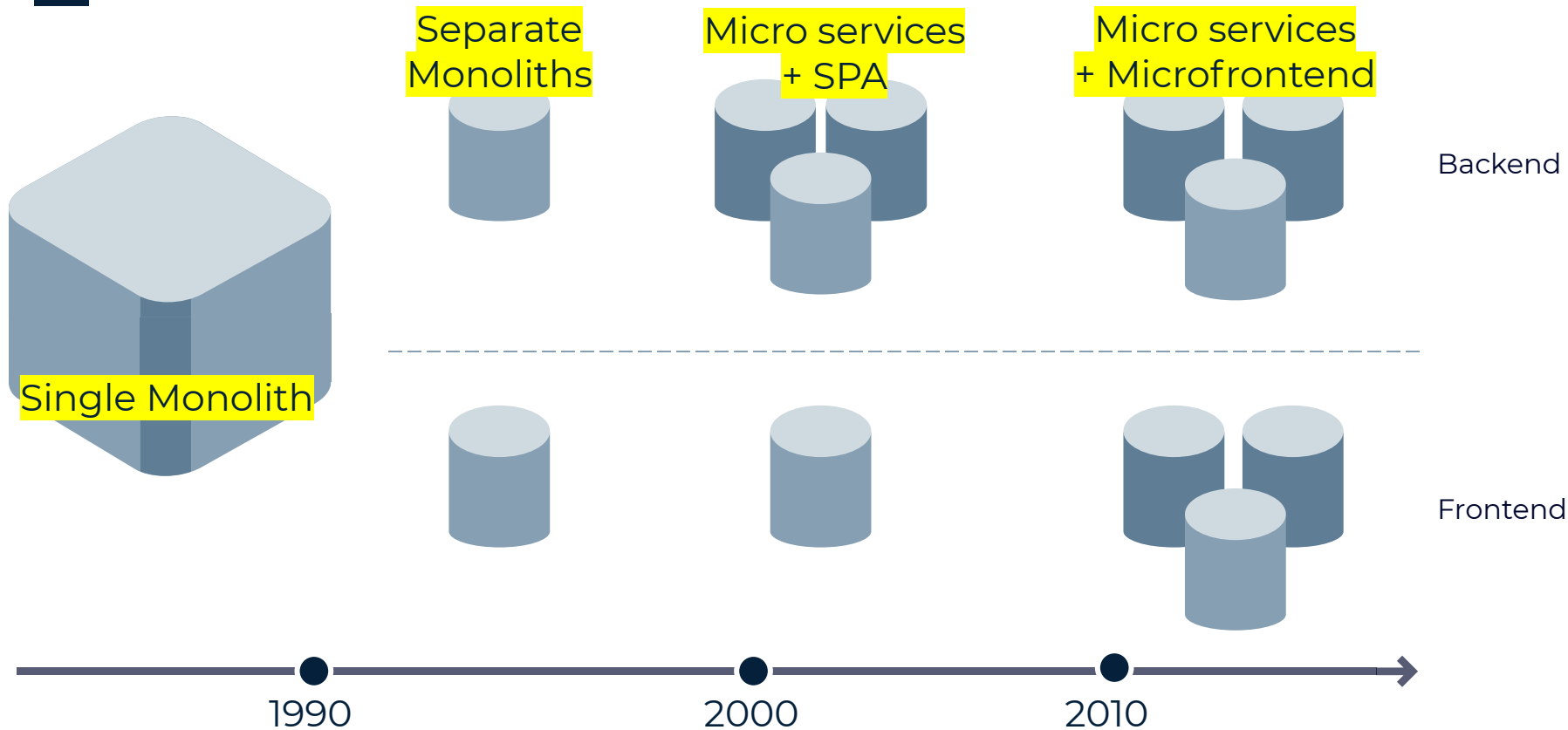
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The Problem

You have this complex software that is developed by a huge team and it's a mess to maintain. To make it even worse, you have additional requirements like high availability and short delivery times.

A brief history of web apps architecture

Separate Monoliths

Micro services + SPA

Micro services + Microfrontend

Backend

Single Monolith

Frontend

1990

2000

2010

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What is micro frontend architecture?

It is an approach to develop web applications as a composition of small frontend apps representing a business subdomain.
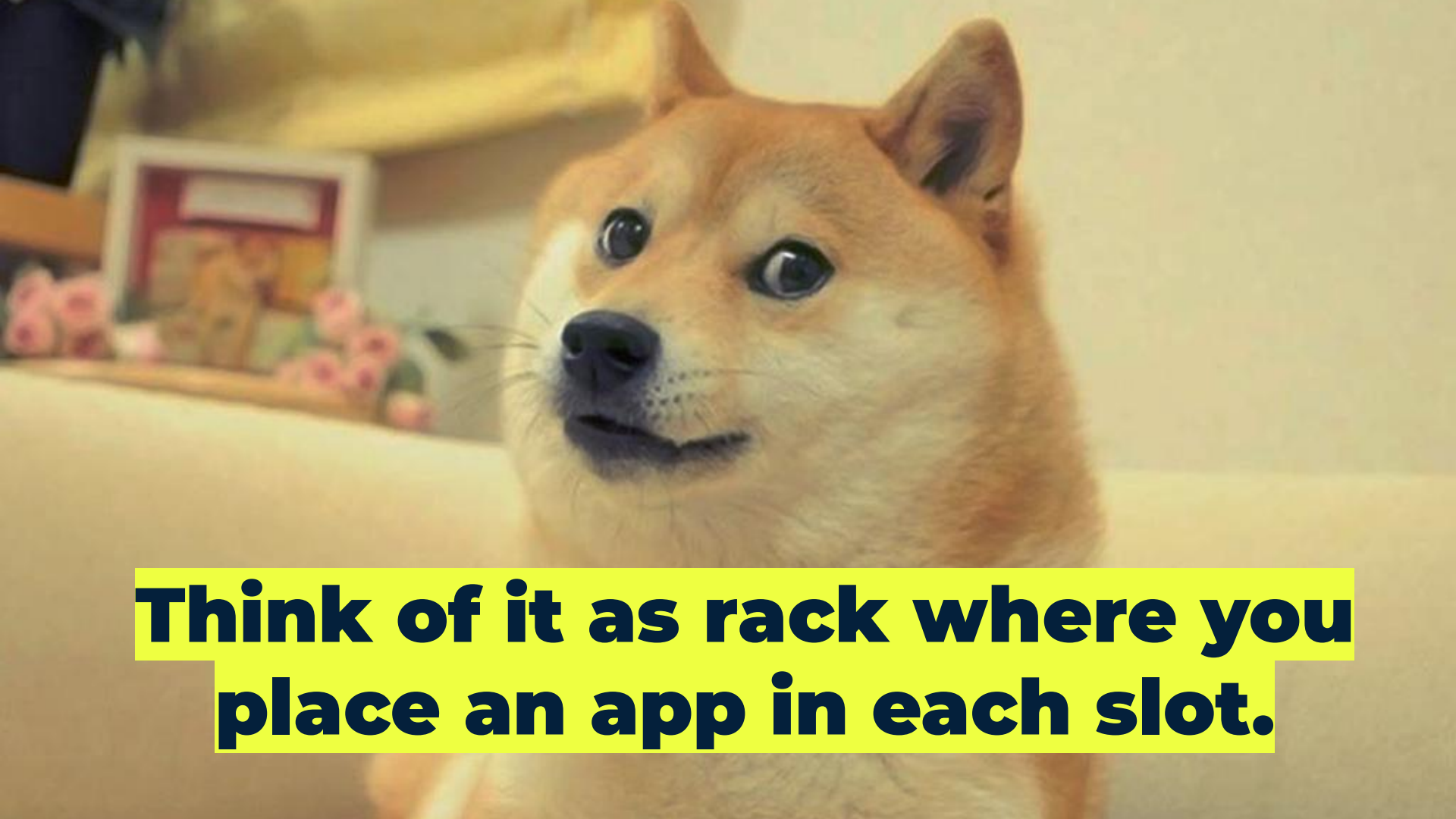
How do they look to the user?

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How do they look like to the browser?

Think of it as rack where you place an app in each slot.

EXAMPLE!

Challenges

Web page composition

We want it to feel as a single application

Visual consistency

We still want our users to feel as if they are interacting with a single application

Share data

Even if they are highly independent, they still need to talk to each other.

Testing strategy

Enfasis on integration tests

iframes

Single-SPA

Web Components

Open Components

Design Guild

NgRx

Redux

Integration Framework

Trade offs

→ Organizational
Flexibility

VS

→ Increased complexity
→ Increased bundle sizes and data transfer
→ Accessibility issues

When should I use them

One person ——— **Useful in this range** ——— Group

Simple HTML ——— **Useful in this range** ——— Image editor

https://github.com/StuMx/microfrontends-talk

Thanks

 @StuMx

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