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## Micro frontends

### < Techniques

Last updated: May 19, 2020

#### NOT ON THE CURRENT EDITION

This blip is not on the current edition of the Radar. If it was on one of the last few editions, it is likely that it is still relevant. If the blip is older, it might no longer be relevant and our assessment might be different today. Unfortunately, we simply don't have the bandwidth to continuously review blips from previous editions of the Radar.

#### **Understand more** >

MAY **Ado**p

# Adopt

We've seen significant benefits from introducing <u>microservices</u>, which have allowed teams to scale the delivery of independently deployed and maintained services. Unfortunately, we've also seen many teams create a front-end monolith — a large, entangled browser application that sits on top of the back-end services — largely neutralizing the benefits of microservices. **Micro frontends** have continued to gain in popularity since they were first introduced. We've seen many teams adopt some form of this architecture as a way to manage the complexity of multiple developers and teams contributing to the same user experience. In June of last year, one of the originators of this technique published an <u>introductory article</u> that serves as a reference for micro frontends. It shows how this style can be implemented using various

NOV 2019

## Adopt



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APR 2019

# Adopt



We've seen significant benefits from introducing <u>microservices</u>, which have allowed teams to scale the delivery of independently deployed and maintained services. Unfortunately, we've also seen many teams create a frontend monolith — a large, entangled browser application that sits on top of the backend services — largely neutralizing the benefits of microservices. Since we first described **micro frontends** as a technique to address this issue, we've had almost universally positive experiences with the approach and have found a number of patterns to use micro frontends even as more and more code shifts from the server to the web browser. So far, web components have been elusive in this field, though.

MAY 2018

### **Trial**



We've seen significant benefits from introducing <u>microservices</u> architectures, which have allowed teams to scale the delivery of independently deployed and maintained services. Unfortunately, we've also seen many teams create front-end

down into its features, and each feature is owned, frontend to backend, by a different team. This ensures that every feature is developed, tested and deployed independently from other features. Multiple techniques exist to recombine the features — sometimes as pages, sometimes as components — into a cohesive user experience.

## MAR 2017

#### **Assess**



We've seen significant benefit from introducing <u>microservice architectures</u>, which have allowed teams to scale delivery of independently deployed and maintained services. However, teams have often struggled to avoid the creation of front-end monoliths—large and sprawling browser applications that are as difficult to maintain and evolve as the monolithic server-side applications we've abandoned. We're seeing an approach emerge that our teams call **micro frontends**. In this approach, a web application is broken up by its pages and features, with each feature being owned end-to-end by a single team. Multiple techniques exist to bring the application features—some old and some new—together as a cohesive user experience, but the goal remains to allow each feature to be developed, tested and deployed independently from others. The <u>BFF</u> - backend for frontends approach works well here, with each team developing a BFF to support its set of application features.

## NOV 2016

### **Assess**



We've seen significant benefit from introducing <u>microservice architectures</u>, which have allowed teams to scale delivery of independently deployed and maintained services. However, teams have often struggled to avoid the creation of front-end monoliths—large and sprawling browser applications that are as difficult to maintain and evolve as the monolithic server-side applications we've abandoned. We're seeing an approach emerge that our teams call **micro frontends**. In this approach, a web application is broken up by its pages and features, with each feature being owned end-to-end by a single team. Multiple techniques exist to bring the application features—some old and some new—together as a cohesive user experience, but the goal remains to allow each feature to be developed, tested and deployed independently from others. The <u>BFF</u> - backend for frontends approach works well here, with each team developing a BFF to support its set of application features.

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