

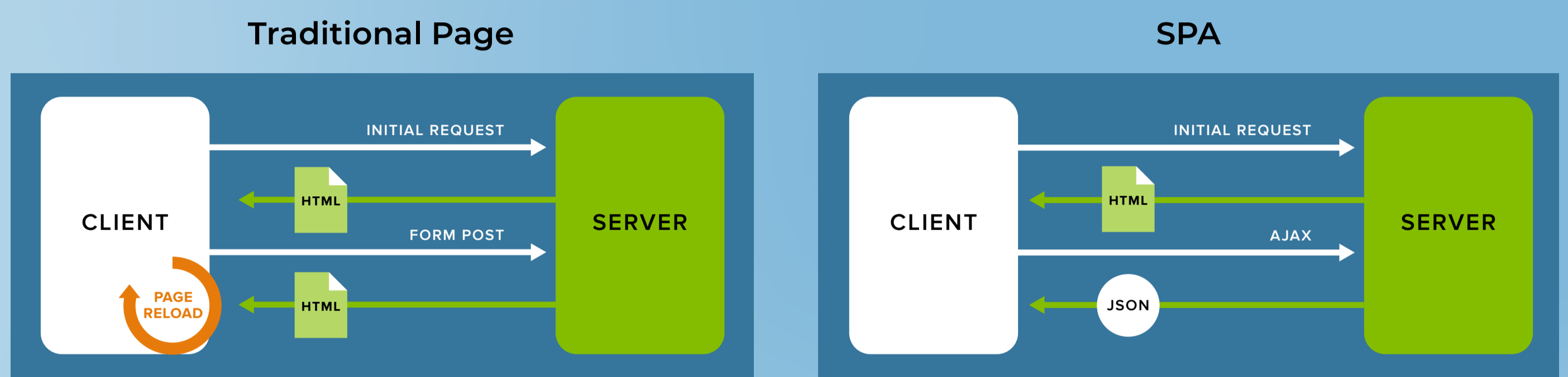
## Single Page App Investment Guide for eCommerce

Everything you need to know when making the move to SPAs

Over the past several years, Single Page Applications (SPAs) have been growing in popularity as an eCommerce architecture. Especially now, with the aggressive shift to digital, brands must innovate to keep up. Below is a guide to everything SPAs, designed to help you decide if you should update or optimize your existing eCommerce architecture.

### What are SPAs?

A Single Page Application is a web application or website that interacts with the user by dynamically rewriting the current page rather than loading entire new pages from a server.



### Why are SPAs popular?

- SPAs don't reset the browser as the user navigates
- This approach avoids interruption of the UX between successive pages, making the application behave more like a desktop application
- In a SPA, all code (HTML, JavaScript, and CSS) – is retrieved with a single page load
- SPAs allow quick wins with low/no code solutions to make an immediate impact

### Why now?

In 2020, eCommerce revenue grew a whopping 53%. Out of all the brands that responded to a recent eCommerce Leaders Survey, 45% of retailers that stated they are investing in SPAs in 2021 were large brands, making \$200M+ annual online revenue. For these brands, there's extra budget to burn, and a lot of pressure to reach successful digital transformation.



### Benefits of SPAs:

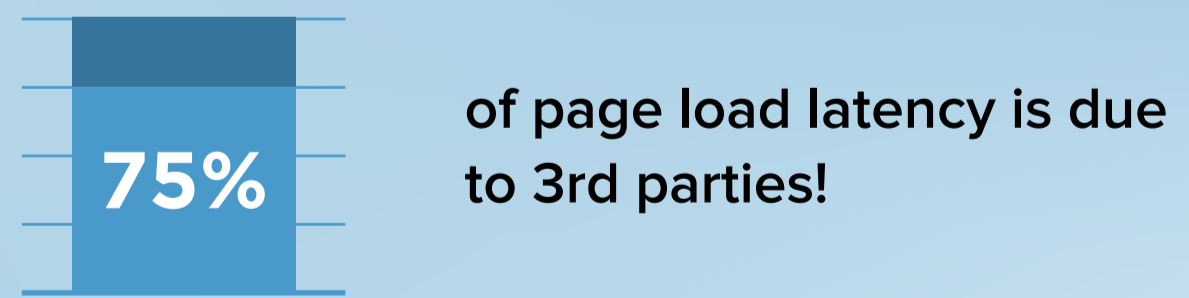
- Multi-threaded Dev teams can work on different parts of the site at the same time
- The site can appear faster and more appealing to shoppers
- IT teams have more control
- As an ongoing initiative, IT teams are able to hire and retain quality Dev talent

### Challenges of SPAs:

- All functionality changes and technology add ons require coding
- Slow page loads will still be an issue due to 3rd parties
- Short and long term costs should be considered
- Page load time measurements may differ

While SPAs can certainly make a site appear faster, they have little impact on speeding up 3rd party technologies, which account for **75% of page load latency**. Surprising? You're not alone. **42% of eCommerce leaders don't realize that 3rd parties will impact site speed regardless of architecture**, as they reside outside of brands' controlled environments.

It's important for brands to know all the facts before making the switch to SPAs, and even with everything considered, it can still be a hard decision to make.



### Filling in the gaps

With a huge percentage of brands investing in SPAs, not only does this mean big costs but also a lot of work. The shift to SPAs changes your development process along with the architecture. The performance and measurement challenge needs to be addressed directly especially with a mixed architecture.

At the end of the day, eCommerce sites are complex, and moving architectures require asking a lot of questions. Even with SPAs, there are still areas where you'll need help:

- 3RD PARTY OPTIMIZATION AND CONTROL
- ANALYTICS AND PERFORMANCE MEASUREMENT
- SITE SPEED