

OPTIMIZE THE WEB PAGE TIME LOADING ANALYSIS

Abstract: With the rapid development of the Internet, page load time has an increasingly significant impact on user experience and website performance. This paper focuses on the optimization analysis of web page loading time, aiming to deeply explore the key factors affecting web page loading speed, and put forward targeted optimization strategies. Through the research of a variety of web performance indicators and the practice test of different optimization techniques, the specific effects of server response time, resource compression and consolidation, image optimization, code simplification and other factors on web page loading time are analyzed in detail. The results show that reasonable application of these optimization methods can effectively reduce the loading time of web pages and improve the fluency and satisfaction of users when visiting web pages. With the increasing importance of page load time optimization, relevant standards and specifications will continue to improve. In the future, there will be stricter and more detailed web performance indicators and evaluation methods, prompting developers to pay more attention to the optimization of web load time. At the same time, browser manufacturers will also pay more attention to the support of web page loading performance in their own kernel and functional design, to provide users with a better browsing experience [1, 2].

In short, the future research on web page loading time optimization will be comprehensively developed in many aspects such as technological innovation, front-end optimization, intelligent strategy, CDN upgrade and standard specification improvement. Through these efforts, we have reason to believe that the future of web pages will be presented in front of users at a near-instant speed, bringing people a more smooth and efficient network experience, and promoting the development of the Internet industry to a higher level. In the future, cross-platform optimization and collaboration will be explored to strengthen the balance between security and loading to cope with the ever-changing network environment and user needs [3].

LITERATURE

1 Patrick Meenan. Web Performance in Action. Manning Publications. 2016.

2 Yoav Weiss, Gil Tayar. Web Performance Tuning: A Hands-On Guide to Modern Optimization Techniques. Apress. 2018.

3 Brian LeRoux, Joe Bender. Ionic in Action: Build amazing cross – platform hybrid mobile apps with Ionic 2 and Angular 2. Manning Publications. 2017 (Relevant for web - related performance in mobile web context).