

# Maximizing Ad revenue using cutting-edge technologies for Frontend optimization

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## At a glance

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Industry  
Digital publishers

Business problem  
Simplify and automate publishing processes to boost advertising revenue and enhance user experience

Expected goals  
Improve website experience, reduce operational costs, optimize ad revenue

Solution  
Website redesigned and migrated to a cost-effective hosting with required integration with advertising partners by re-engineering the AdTech stack

## Context

The client is a US-based digital media publishing company. They sought to scale their publishing process and increase the speed of content publishing while reducing costs. They aimed for simplified and automated processes to boost advertising revenues and enhance user experiences.





## Business problem

The client's existing website was ill-suited for scalable publishing, adversely affecting user experience and hampering ad revenue generation.

The key challenges that the client was facing were:

- High hosting costs
- Slow website loading
- Legacy CMS system that was slowing the publishing process and negatively affecting user experience
- Ineffective AdTech stack leading to revenue leakage

## Expected goals

The client's expectations from this engagement were to:

- Reduce hosting cost
- Attract higher volumes of visitors
- Enhance user experience while consuming content
- Maximize ad revenue

## Solution delivered

To take care of the diverse requirements, the following actions were completed:

- The website was migrated to a faster and more cost-effective hosting platform, WordPress, an open-source CMS, to improve performance and governance and to streamline the publishing process.
- The AdTech stack was re-engineered by integrating it with the Google Double Click for Publishers (DFP) platform. This is to improve revenue forecasting, traffic management, platform optimization, attract high traffic volume, and improve the user experience.
- Integration with AdTech partners using JavaScript technologies to help the client retain traffic and arrest revenue leakages.
- Faster communication between the back-end and front-end was secured and optimized by deploying an API Strategy, leveraging Swagger tools (Swagger UI, Validation, and Router).



## Solution highlights

- The website was migrated to WordPress while keeping the metadata intact through custom migration scripts.
- The AdTech stack integration was done with 47 partners to arrest revenue leakage. An example is the integration with Sulvo, which optimizes the user experiences while unifying demand and helping retain the adblock traffic. Similarly, integrations with video advertising partners like YieldLove and Seracast and multiple advertising networks helped to seal ad leakages and assisted the client generate maximum revenue from their traffic.

## Technology stack deployed:

- Hosting and CMS: WordPress, WordPressVIP and Boyle Software's own Hearty Hosting solution
- AdTech stack: Google DoubleClick for Publishers (DFP) platform
- Back-end: Integrated with AdTech partners using JavaScript technologies, such as ES6, Express.js, and Node.js, along with AWS technologies like ECS, SQS, Cognito, and S3
- For API communication: Swagger tools that included Swagger UI, Validation, and Router

## Outcomes of the engagement

The key outcomes of the engagement were:

- Reduction in website hosting costs and improved website performance as the result of the highly scalable and faster website
- Improved user experience and increased ad revenue due to the scalable and responsive AdTech stack
- Near 100% uptime for the website, resulting in client satisfaction

## Key project outcome metrics:



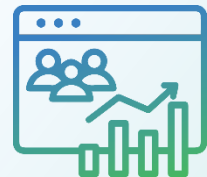
**32%**

Improvement in  
cost per action



**200**

Increase in click-  
and view-throughs  
**%**



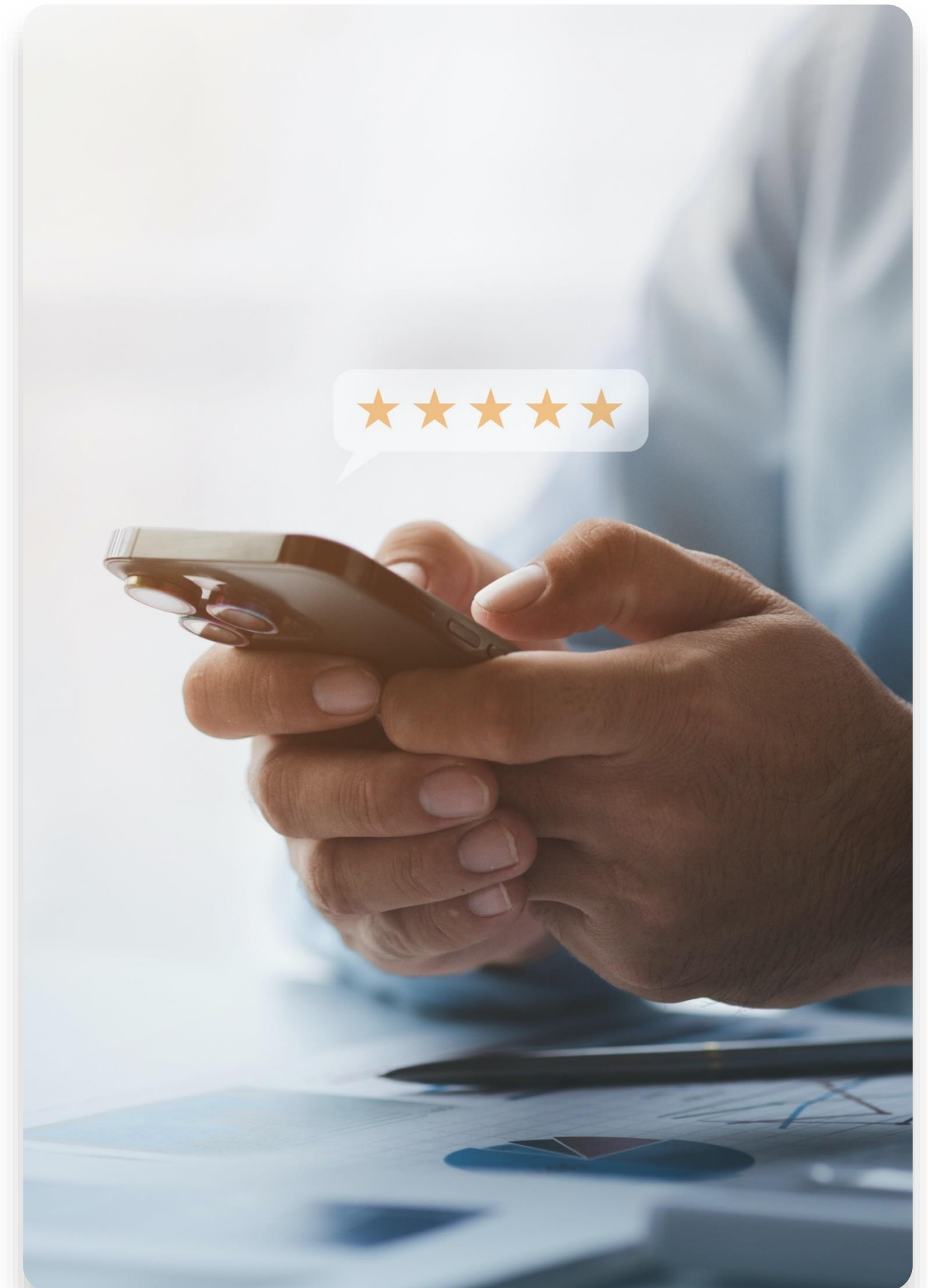
**13**

More pages visited  
on average



**30**

Minute increase in  
average time on site  
per session





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