

Review of: "Deploying WordPress in Docker: A Scalable and Secure Solution"

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This article claims to present an approach for a scalable WordPress deployment using Docker. I have sincere doubts about this article: Not only does the paper lack almost everything that makes a good research paper, but it also feels about 10 years too late. In brief, it is unclear what the research question is to be answered; the evaluation is at best superficial; the architectural details of the solution are not discussed; neither is the terminology clarified; also, the authors seem to lack a deeper understanding of distributed systems and the interplay between scalability and data consistency. For a start, having a look at "Designing Data-Intensive Applications: The Big Ideas Behind Reliable, Scalable, and Maintainable Systems" by Martin Kleppmann can help.

Personally, I find the use of scaling flawed. The solution uses two database instances and two WordPress instances. From what I understand, WordPress 1 is connected to MySQL 1, and WordPress 2 is connected to MySQL 2. This creates two independent installations that happen to be based on the same software stacks but have nothing else in common. It is not even clear why a load balancer is needed. What should it load balance?

If the approach is that MySQL 1 and MySQL 2 contain the very same data and it is load balanced between these identical data, the authors need to answer how updates to the databases (new content in WordPress) are to be handled and why some sort of scaled database (e.g., via a Galera Cluster) cannot be applied.