

Database and web server on the same machine

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One of my friends said that he always favor DB on a separate machine instead of having it on the same machine as the web server. I also had a discussion on the same in the ASP.NET forums, where I realized that most developers think on the same lines as my friend. This was a bit surprising as logically speaking, having a DB on a different machine will lead to extra network trip, which will definitely affect performance. Even if we have a high link line between both web server and the DB server, theoretically speaking there will still be an extra overhead, no matter how small it is.

I agree that having 2 machines with a firewall between them would make your app more secure in the event that if a hacker gains access to your web server, the DB server would still be safe. But increase in performance is a bit difficult to digest!

Then I realized that people confuse **scalability** with **performance**. Ofcourse having two machines would increase the scalability, which is a good thing. But if you have a single web app and foresee no major scalability issues, then having the DB alongwith the web server is perfectly fine!

We need to consider all cases before taking any decision on creating an extra DB tier instead of following some rule blindly.