

Microservices vs. SOA - What's Best for Your Company

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Microservices vs SOA

Microservices vs. SOA, what are the main differences? Microservices are better refined and more efficient especially in large companies.

([Newswire.net](#) -- November 30, 2018) -- Microservices are currently a popular option among developers and companies seeking to break down large applications into smaller independent services. Even with this popularity, not everyone fully grasps their functions and suitability in different situations. There is also a substantial number who either confuse them with SOA or others who find it difficult to pick the two options. It is essential to have a

discussion over microservices vs. SOA, to understand what each of them is, how they came to be and their differences and similarities.

What is SOA?

SOA is the earlier technology, and it stands for Service Oriented Architecture. It was developed to help break down previously indivisible applications into smaller units that focused on business objectives. Unfortunately, it was not wholly successful as earlier envisioned. This is because the architecture retained most of the chunkiness and interdependency that was in the [monolithic applications](#). This resulted in slow communication speeds and the need to rebuild an entire application whenever any change is to be made.

What are Microservices?

Microservices came about as a refinement of the functionality of SOA. They thus retain the same aim of breaking down big applications to more independent and specific tasks. The main features of microservices architecture are their ease of deployment since each task has all the required resources for its fulfillment.

The similarity of purpose means there are aspects which are shared between the two architectures. These similarities include the need for decentralization as well as the creation and empowerment of cross-functional development teams. There is also freedom of choice in the programming [language](#) used which allows for effectiveness since the language with the features that best serves the purpose is used.

Microservices vs. SOA

Having an idea of what each of these architecture forms is, it is best to know how they match head to head on several important metrics.

1. **Storage of Data:** In SOA, similar to the whole application, data gets stored in the same RDMS database. As the app grows and its data develops different characteristics and processing requirements, the SOA will fall short. With microservices, each data gets its data store, and the developer has options when picking the right storage type to match the service's needs.
2. **Scope Covered:** Microservices focus on single functions meaning new people need not learn and understand the whole application since the service is independent. On the other hand, SOA services can be difficult to learn since they are interdependent and also share a single database and one has to master the whole application.
3. **Communication:** The communication structures of microservices and SOA are different. The structure of microservices communications allows for more remote calls and overhead which makes communication faster and also highly resistant to faults. On the other hand, SOA communication structure lowers the cost but slows down communication while having a high potential for failure.
4. **Deployment:** The fine granularity of microservices makes it easy and fast to deploy services as each can be built

independently. The deployment is continuous and rapid. It is not possible to achieve this in SOA due to its interdependencies and coarse granularity.

Conclusion

When it comes to microservices vs. SOA, what are the main differences? SOA and microservices are both architecture forms that aim at breaking down applications to objective focused services. As the microservices vs. SOA discussion shows, each could have a purpose though microservices are better refined and more efficient especially in large companies.

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