

# Middleware Paper Discussion 2



TECHNISCHE  
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## Components versus Services

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Download ([http://www.dvs.tu-darmstadt.de/teaching/cs/material/papers/Elfatratry\\_Components.pdf](http://www.dvs.tu-darmstadt.de/teaching/cs/material/papers/Elfatratry_Components.pdf)) and read the paper “Dealing with Change: Components versus Services” by Ahmed Elfatratry (Communications of the ACM, August 2007/Vol.50 No.8).

### Answer the following questions:

1. According to the paper, what is a component and what is a service?
2. What is the primary goal of component-based development?
3. Which obstacles are mentioned to achieve this goal?
4. How do component-based approaches support business agility?
5. How do service-based approaches support business agility?
6. Why did components and services come up in the first place? Isn't OOP enough?
7. Which advantages do services have over components?
8. The conclusion states that services are “a better solution to change”. What is the cost to these advantages?
9. How does a programmer know which service/component to pick for use?
10. Which kind of flexibility do components support? Which one do services support?

Hand in one to two pages **on paper** at the beginning of the exercise session on **Nov 25**. Group submissions are not allowed, however we encourage discussing your answers with fellow students. Don't forget to put name and student ID on your submission.