

**Review Form: 1<sup>st</sup> International Workshop on  
Services and Infrastructure for the Ubiquitous and Mobile Internet (SIUMI'05)**



**SIUMI 2005**

**WEB MINDS**

Columbus, Ohio,  
USA, June 6<sup>th</sup>, 2005

In conjunction with the 25th Int. Conference on Distributed Computing Systems (**ICDCS'05**)

Paper Number: 25

Paper Title: Research on Reuse-Based Web Services Composition

Authors: Rao Yuan, Li Zunchao, Feng Boqin

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**Reviewer1:**

<b>Familiarity</b> Rate your familiarity with the topic	1	2	3 ✓	4	
	Novice	Some knowledge	Familiar	Expert	
<b>Significance</b> Technical relevance and practicality of ideas in the paper	1	2 ✓	3		
	Not significant	Somewhat significant	Highly significant		
<b>Novelty</b> How original the problem and/or solution method is	1 ✓	2	3		
	Not novel	Somewhat novel	Highly novel		
<b>Quality of Presentation</b> Writing and presentation style/accuracy	1	2 ✓	3		
	Poorly written	Could be improved	Well written		
<b>Overall Recommendation</b>	1	2	3 ✓	4	5
	Strong reject	Weak reject	Weak accept	Accept	Strong accept

**Contributions**

The paper discusses the importance of Web services composition as a means to rapidly develop and assembly new software applications using available existing ones, which may be provided by different parties. In order to enable Web services composition, authors propose a meta-model that defines different composition types, e.g., sequence or parallel, and an XML-based service composition description language. Finally, it is shown how service composition may be integrated with the typical life cycle of a software application.

Authors show a good knowledge and technical understanding of the topic area and the paper focuses on some interesting topics, like for instance the possibility to exploit composition during software application development. However, the presented ideas don't sound particularly novel.

## Strengths and weaknesses

### Strengths

The paper focuses on a topic that is attracting much attention from the research community, i.e., exploiting the loosely coupled nature of Web services in order to quickly develop new services by assembling existing ones. The topic is quite accurately discussed, by providing both a definition of Web service model and various references to existing work. In addition, authors clearly describe the integration of service composition within software life cycle.

### Weaknesses

The paper does not contain really novel ideas, since many workflow models and composition languages have already been proposed and in some cases are becoming standard. In addition, there are some recurrent writing mistakes, especially in the use of conjunctions and adverbs, that make it sometimes difficult to read and properly understand the paper.

## Detailed public comments

There are some points that I could not quite understand. First of all, it is not clear what authors mean with the expression “architecture-based composition”: I would suggest to explain this concept in a more extensive way also because this is presented as a leading idea of the paper.

Also, it is not clear how the formal model of service provided in Section 3 is then used in the composition meta-models.

Finally, the case study prototype system may be discussed in more details in order to make it actually useful to reader's comprehension.

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## Reviewer 2:

<b>Familiarity</b> Rate your familiarity with the topic	1	2	3X	4	
	Novice	Some knowledge	Familiar	Expert	
<b>Significance</b> Technical relevance and practicality of ideas in the paper	1	2X	3		
	Not significant	Somewhat significant	Highly significant		
<b>Novelty</b> How original the problem and/or solution method is	1X	2	3		
	Not novel	Somewhat novel	Highly novel		
<b>Quality of Presentation</b> Writing and presentation style/accuracy	1X	2	3		
	Poorly written	Could be improved	Well written		
<b>Overall Recommendation</b>	1X	2	3	4	5
	Strong reject	Weak reject	Weak accept	Accept	Strong accept

## Contributions

The paper analyzes how to reuse atomic Web service components in order to develop a Web service-based application. The authors describes a meta-model of service composition and a service composition description language. A case study related to an e-learning application platform based on Web services is also briefly presented.

Composition of Web services has recently received much attention to support B2B and enterprise applications; therefore, the topic of reuse of Web service is interesting. However, the paper has a low degree of novelty.

## Strengths and weaknesses

The paper should be rejected because its topic is out of the scope of the SIUMI workshop (it does not specifically address any issue related to ubiquitous and mobile Internet); in addition, the paper is poorly written and hardly readable, with many grammar errors and incomplete sentences.

## Detailed public comments

The main problem of the paper regards its topic which does not regard at all any specific interest of the SIUMI workshop. For example, the paper does not present a reuse-based composition of Web services which deals with aspects related to ubiquitous and mobile Internet. The authors should consider a submission to a more software engineering and Web service-oriented workshop or conference.

In the abstract the authors comment about the results of the prototype system but these results are not shown or quantified in the paper. Indeed, the same sentence regarding the results is repeated in the abstract as well as at the end of Section 5.2, without adding any detail or explanation.

The organization of the paper has to be improved; for example, the analysis of related works is spread throughout the paper (for example, Section 4.1), even if there is Section 2 devoted to this scope.

The authors should consider the paper by Milanovic and Malek, "Current solutions for Web service composition", IEEE Internet Computing, Nov./Dec. 2004.

The paper is poorly written and needs to be clearly checked for grammar and sentence construction prior to be reconsidered for a new submission. A lot of language problems make it hard to understand various parts of the paper.

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## Reviewer 3:

<b>Familiarity</b> Rate your familiarity with the topic	1	2x	3	4	
	Novice	Some knowledge	Familiar	Expert	
<b>Significance</b> Technical relevance and practicality of ideas in the paper	1	2x	3		
	Not significant	Somewhat significant	Highly significant		
<b>Novelty</b> How original the problem and/or solution method is	1	2x	3		
	Not novel	Somewhat novel	Highly novel		
<b>Quality of Presentation</b> Writing and presentation style/accuracy	1	2x	3		
	Poorly written	Could be improved	Well written		
<b>Overall Recommendation</b>	1	2	3x	4	5
	Strong reject	Weak reject	Weak accept	Accept	Strong accept

## Contributions

The paper addressed the issue of web service composition on how to reuse web service more efficiently.

## Strengths and weaknesses

The strength: The problem addressed by the paper is important. The paper investigated the service reuse and composition mechanism from software engineering and software architecture perspective.

The weakness is that the paper is not easy to follow.

## Detailed public comments

The authors should improve the readability of the paper.