

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



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WEB MINDS

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Paper Number: #03

Paper Title: Handoff Architecture and algorithm for 4G Mobile Wireless Internet

Authors: Rosli Salleh and Xichun Li

Reviewer1:

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

Contributions

Quote: "This paper describes an architecture and algorithm that are able to provide uplink and downlink traffic of services by different wireless access networks." In reality it is only handover from cellular to WLAN that is discussed. I.e. quite limited scope. Also, the paper is not very well structured. The description of the solution is mixed with descriptions of already existing solutions. This makes it difficult to understand what is claimed to be new. On the positive side, the problem addressed is interesting, but since much work has been done in this area, more than this would be required of an interesting paper. The described solution is not very detailed, and only addresses one small issue of the problem area.

Strengths and weaknesses

Reject because of: too limited scope, not enough detailed analysis, badly structured paper, as well as poorly written English, which sometimes makes it hard to understand the text.

Detailed public comments

Reviewer2:

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

Contributions

The question about the major issues addressed in this paper is a bit hard to answer. The proposed architecture is questionable. The handoff algorithm may work but the proposed handover case (i.e. a mobile node moving from cellular coverage into WLAN coverage) having both accesses available will in most cases not cause any problems since there will always be a possibility to receive packets simultaneously on the two interfaces.

Strengths and weaknesses

First of all the paper is poorly written focusing too much on related work (section 2.1) and too little on the actual research work.

The proposed idea does not seem to be new, at least not to me. Specific details of the proposal may be new but the overall impression is that there is not very much new in this paper.

The proposed 4G wireless Internet architecture, as proposed in figure 1, will most likely never be considered as a 4G architecture (at least to my knowledge).

Detailed public comments

Focus less on related work and try to better highlight what's new in this proposal.

Reviewer3:

Familiarity Rate your familiarity with the topic	1	2	X	4
	Novice	Some knowledge	Familiar	Expert
Significance Technical relevance and practicality of ideas in the paper	X	2	3	
	Not significant	Somewhat significant	Highly significant	

Novelty How original the problem and/or solution method is	X		2		3	
	Not novel		Somewhat novel		Highly novel	
Quality of Presentation Writing and presentation style/accuracy	X		2		3	
	Poorly written		Could be improved		Well written	
Overall Recommendation	X	2	3	4	5	
	Strong reject	Weak reject	Weak accept	Accept	Strong accept	

Contributions

No clear contribution. The paper is very messy.

The tricks proposed to manage handoff issues are small contributions and do not fit in a general framework. Just some figures are given, but no concrete results deriving from an experimental activity are provided. The authors themselves recognize that simulation activity is going on and their approach needs to be still validated.

Strengths and weaknesses

This paper does not provide any significant contribution to research. The English is very bad and undermines the readability of the paper. The work as presented in the paper can be considered just a first step towards the definition of a novel and effective handoff technique.

All in all, a very poor work.

Detailed public comments

The readability of this paper is very poor, perhaps the authors were in a hurry to submit it.

Presentation needs a lot of improvement. The information provided in the paper together as well as the way it is provided are not sufficient to understand and evaluate the contribution.

I would suggest that the authors improve the paper by providing a clear explanation of their work and by completing and supporting it with experimental results.

Reviewer4:

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

Contributions

This paper addresses the issue of efficient vertical handoffs in 4G networks, which integrates a wide variety of Wireless access technologies. This issue is important in the context of 4G networks since 4G attempts to provide users with high QoS while hiding the underlying complexity in utilizing multiple access technologies. After a description of related technologies, the authors propose a high level view/architecture and algorithm for handoffs. The key new idea is to utilize the cellular connection for uplink traffic and WLAN for downlink traffic.

Strengths and weaknesses

The main problem with this submission is the lack of novelty and creativity. The idea it proposes is not proved to be valuable and useful in this paper. There is no convincing argument or results as to how vertical handoffs are done with both cellular and WLAN.

More than half the paper talks about related and existing work in the area without highlighting why the proposed solution is different. The author's work is briefly described in terms of a very high level workflow diagram without any insights. I am not sure why they title that section "Handoff Algorithm and Analysis" since I can see neither a clear specification of any new algorithmic technique or any analysis of the algorithm there. There are no experimental or simulation results that describes the efficacy of this approach. It appears that they have something started out (see the last sentence of the abstract). Finally, the paper is very poorly written with several spelling mistakes and grammatical errors. I would recommend that the authors more clearly formulate the technical problem they are addressing, followed by a clean algorithm and simulation results and resubmit to another venue.

Detailed public comments

1. Too many spelling mistakes and grammatical mistakes in writing.
2. Too long overview of existing work but too short description of authors' work.
3. The proposed architecture is just like a combination of hierarchical mobile IP and multi-path handoff in existing work.
4. The proposed algorithm can't be called an algorithm. It's rather a mechanism.
5. It is not clearly shown what the advantages of the proposed architecture and algorithm are.
6. No proof is presented that the proposed architecture and algorithm are better than previous ones.