

## IEEE TWC - Decision on Manuscript ID Paper-TW-Feb-22-0289.R1

IEEE Transactions on Wireless Communications <onbehalf@manuscriptcentral.com>

Fri 10-Feb-23 3:41 AM

To: huizi\_xiao@stu.xidian.edu.cn <huizi\_xiao@stu.xidian.edu.cn>

Cc: huizi\_xiao@stu.xidian.edu.cn <huizi\_xiao@stu.xidian.edu.cn>; Jun Zhao (Asst Prof) <junzhao@ntu.edu.sg>; jiefengcl@163.com <jiefengcl@163.com>; leiliu@xidian.edu.cn <leiliu@xidian.edu.cn>; qqpei@mail.xidian.edu.cn <qqpei@mail.xidian.edu.cn>; weisong@wayne.edu <weisong@wayne.edu>; smao@ieee.org <smao@ieee.org>; kpxue@ustc.edu.cn <kpxue@ustc.edu.cn>; eic.twc@ece.ubc.ca <eic.twc@ece.ubc.ca>; admin.twc@ece.ubc.ca <admin.twc@ece.ubc.ca>

09-Feb-2023

Dear Miss Xiao:

Manuscript ID Paper-TW-Feb-22-0289.R1 titled "Joint Optimization of Security Strength and Resource Allocation for Computation Offloading in Vehicular Edge Computing" which you submitted to the IEEE Transactions on Wireless Communications, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter.

The reviewer(s) have suggested some minor revisions to your manuscript. Therefore, I invite you to respond to the reviewer(s)' comments and revise your manuscript.

\*\*\*Please provide here your detailed editorial summary that explains and justifies your decision.\*\*\*

To revise your manuscript, log into <https://mc.manuscriptcentral.com/twc> and enter your Corresponding Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

Once the revised manuscript is prepared, you can upload it and submit it through your Corresponding Author Center.

When submitting your revised manuscript, you will be able to respond to the comments made by the reviewer(s) in the space provided. You can use this space to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewer(s).

**IMPORTANT:** Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

When you revise your manuscript, please make sure that you comply with our manuscript length requirements and that you do not exceed these. Your revised manuscript should be returned within SIX WEEKS and will consider the manuscript as rejected if we do not receive the revised manuscript within EIGHT WEEKS from the date of this letter.

Once again, thank you for submitting your manuscript to the IEEE Transactions on Wireless Communications and I look forward to receiving your revision.

Sincerely,

Dr. Kaiping Xue  
Editor, IEEE Transactions on Wireless Communications  
kpxue@ustc.edu.cn

Reviewer(s)' Comments to Author:  
Reviewer: 2

Comments to the Corresponding Author

The manuscript formulates a max-min optimization problem to jointly optimize offloading decision, transmit power, task computation frequency, encryption computation frequency, edge computation frequency, and block length to obtain secure information capacity and local computation delay. Some characteristics of the vehicular network are taken into consideration, and the generalized benders decomposition-based method is developed to solve this optimization problem. The work is generally well done. There still are some suggestions to improve the quality of the paper.

1. The paper may need some language polish and refinements.
2. The manuscript is a little wordy, making it sometimes hard to follow.
3. The evaluation is based on simulation. Test-bed based on experiments will be better than simulation, which will demonstrate that the approach's excellence can reach the performance and scalability demands in the real world.

Reviewer: 1

#### Comments to the Corresponding Author

The paper proposes a method to jointly optimization of security strength and resource allocation for computation offloading in vehicular edge computing. There are some driving velocity and adversary models in the manuscript to obtain the minimum time delay in local computing and high secure information capacity in edge computing. The last revision has resulted in a substantial improvement in the quality of the paper, but I still have the following concerns unresolved.

- 1.The paper still requires further proofreading.
- 2.The linear adversary model in security quantification seems too simple in this scenario.
- 3.It is still not a realistic assumption that the vehicle maintains a constant speed in a road segment.
- 4.The feasibility of the proposed system model and algorithms is questionable due to the lack of experimental results from the real system with heterogenous mobile devices /vehicles and a dynamic mobile network.