Accepted Manuscript

Erlang-based desynchronized urban traffic simulation for high-performance computing systems

Wojciech Turek

PII: S0167-739X(17)31181-0

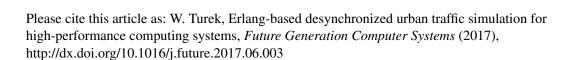
DOI: http://dx.doi.org/10.1016/j.future.2017.06.003

Reference: FUTURE 3494

To appear in: Future Generation Computer Systems

Received date: 13 December 2016

Revised date: 9 May 2017 Accepted date: 5 June 2017



This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

Erlang-based Desynchronised Urban Traffic Simulation for High-Performance Computing Systems

Wojciech Turek

submitted to the Future Generation Computer Systems Journal on December 13th 2016

Paper highlights

The paper presents a parallel implementation of an urban traffic simulation method which allows linear scalability of up to 19200 computing cores. The presented work consists of the following contributions:

- 1. the concept of desynchronised traffic simulation is proposed,
- 2. its scalable implementation in Erlang technology is presented,
- 3. the results of experiments involving 19200 computing cores are discussed.

I believe, that the presented analysis of the problem and the proposed solution are valuable steps in the development of simulation methods for HPC systems.

Download English Version:

https://daneshyari.com/en/article/6873388

Download Persian Version:

https://daneshyari.com/article/6873388

<u>Daneshyari.com</u>