

## Accepted Manuscript

A light weight authentication protocol for IoT-enabled devices in distributed Cloud Computing environment

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Dear FGCS Editor-in-Chief and Lead Guest Editor,

We have made significant improvements and have fully addressed reviewers' requests. We have demonstrated security theory and blended the latest work with our proofs-of-concept. We hope that you can consider our paper. Many thanks.

Yours sincerely,

Dr. Victor Chang on behalf of all co-authors

18 November 2016

### Highlights

- We have developed Light Weight Authentication Protocol for IoT-enabled Devices in Distributed Cloud Computing Environment.
- We show security vulnerabilities of the multiserver cloud environment of the protocols proposed by Xue et al. and Chuang et al. and propose an architecture which is applicable for distributed cloud environment and based on it an authentication protocol using smartcard.
- We have used AVISPA tool and BAN logic model and informal cryptanalysis confirms that the protocol is protected against all possible security threats.
- The performance analysis and comparison confirm that the proposed protocol is superior than its counterparts.

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