

## GUEST EDITORIAL PREFACE

# Special Issue from the International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE)

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## CONTENT OF THE ISSUE

The cloud computing model has emerged to enable businesses to acquire and use computing resources on demand. It is now a reality in the market, as it minimizes upfront capital investments, while reducing costs by eliminating expensive IT infrastructure and specialized staff. The cloud computing market has a strong growth in adoption not only by individuals, but also by companies and governments.

Nevertheless, the main concerns organizations have when adopting cloud computing are security and privacy of their data. Because of its multiple service and delivery models, cloud computing is subject to new technical risks due to the shared computing resources utilization. As the number of reported security incidents related to the use of cloud is growing over the years (CSA, 2013), it is of foremost importance to foster research addressing these pressing challenges to tackle such concerns and increase consumer trust in the cloud.

The three selected papers from the the international conference on enabling technologies: Infrastructure for collaborative enterprises (WETICE 2014<sup>1</sup>) bring contributions addressing some of the most relevant topics mentioned above.

- One of the applications of the results presented in the paper “Checking Opacity of Vulnerable Critical Systems On-The-Fly”, by Amina Bourouis, Kais Klai, Yamen El Touati, and Nejib Ben Hadj-Alouane. It is to bring privacy protection for outsourced computer services. By preventing an adversary to learn information from a tenant running processes in the cloud.
- Because software security vulnerabilities are still prevalent today in the cloud, one can question the effectiveness of the secure development methodologies available. It is urgent to propose innovative approaches, ideally with automated tool support to reduce errors. The work in “C-SCRIP: Collaborative SeCurity patteRn Integration Process” by Rahma Bouaziz, Fatma Krichen and Bernard Coulette, addresses this question. It focuses on security patterns, indispensable for reproducing designs that have been proved effective.
- Finally, the emerging era of the Internet of Things will require practical approaches for securing sensor networks. As a matter of fact, there is a considerable intersection of the cloud and Internet of Things top threats (OWASP, 2014): in particular insecure APIs (result of failing to produce secure code) and insufficient network protection issues (as a consequence of flawed sensor network design and further privacy controls implementation). The paper “A Complete Security Framework for Wireless Sensor Networks: Theory and Practice” by Christophe Guyeux et al. presents an end-to-end framework for assuring important properties of secure wireless sensor message exchange.

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## REFERENCES

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## ENDNOTES

<sup>1</sup> <http://cmt.dmi.unipr.it/wetice14/>