PAPER TITLE: Detecting VMs Co-residency in Cloud: Using Cache-based Side Channel Attacks

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Is the paper written in the right format? ☒ YES ☐ NO
Does the length of paper matched the allowed number of pages (4 or 6)? ☒ YES ☐ NO
Are the figures, table and captions clear and complete? ☒ YES ☐ NO
Are the formulae clear and consistent? ☒ YES ☐ NO
Are there adequate references to related work? ☒ YES ☐ NO

EVALUATION

Referee evaluation (please tick where appropriate):

Scientific quality ☐ POOR ☐ FAIR ☐ GOOD ☒ VERY GOOD ☒ EXCELLENT
Relevance in the field ☐ POOR ☐ FAIR ☐ GOOD ☒ VERY GOOD ☒ EXCELLENT
Originality ☐ POOR ☐ FAIR ☐ GOOD ☒ VERY GOOD ☒ EXCELLENT
Language and clarity of presentation ☐ POOR ☐ FAIR ☒ GOOD ☒ VERY GOOD ☒ EXCELLENT

RECOMMENDATION

☐ DECLINE SUBMISSION ☒ ACCEPT (AS IT IS)
☐ ACCEPT (AFTER MINOR REVISIONS)
☐ ACCEPT (AFTER MAJOR REVISIONS)
☐ I WANT TO SEE THE PAPER AFTER REVISIONS

REMARKS (please, use an additional page if necessary)

The manuscript investigates a very interesting problem that is becoming more and more relevant in the light of the increased cloud utilization world-wide, which is very important in the field of cloud computing. Authors give an ideal resolution to detect VMs Co-residency, which is crucial to secure Cloud Computing. The basic idea of the authors is to perform basic memory operations on the cache, measure the time taken, and look for outliers that are inconsistent with the modeled cache behavior. If there are sufficient outliers, conclude that other VMs are co-resident on the machine, sharing the cache. A mathematical formulation is developed, and then the concept is implemented and evaluated, demonstrating that one observing VM can in fact detect the co-residency of another.

The paper is well organized, and the style complies with the requirements of the journal. Some of the sentences should be reconstructed to make it easily understood by the readers.

I think the work of authors is meaningful, and it should be accept.