Paper Review Report

Title: Cloudlets: Bringing the cloud to the mobile user

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With advanced capabilities, mobile device users frequently use mobiles in their day-today activities (such as emailing, GPS routing, Internet banking, gaming etc). But still mobile devices have limitations on execution of many rich media and data analysis applications that require heavy computation, and often also have (near) real-time constraints such as augmented reality (AR). To overcome the resource limitations of mobile devices scholars have proposed different solution: cloud computing (which has latency problem), VM based cloudlet approach(which has service provider dependency and have coarse granularity problems).

The authors proposed a new cloudlet architecture that provides dynamic infrastructure (devices can join and leave the cloudlet at runtime) collocated with the WiFi access point and enables ad hoc discovery of devices in the vicinity to share resources among each other. It contains application components that can be distributed among the cloudlets. The architecture alleviates the above mentioned problems by:

- Letting devices in the LAN network to cooperate in the cloudlet
- Dynamically partitioning the application in components

The authors have used an augmented reality use case to show the need for the proposed cloudlet architecture. A java implementation of a prototype of the framework in java that runs in most hardware devices and Android OS has been done.

Issues related to deployment calculation and scheduling, and using multiple places for remote execution instead of single discovered surrogate has been proposed by the authors as a future work.

Overall, the paper deals with an important but not novel problem, and the authors use a novel and solid solution approach.