ECE5658

Critiques - week4

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1 Power Provisioning

(1) **summary of the paper:** It is the first paper about warehouse-sized computer system power provisioning. There are some differences between rack-level systems and cluster-level systems in terms of power, like gap between achieved and theoretical peak power, and they give a lot more opportunity to save power and energy.
(2) **strengths/weakness of the paper:** This paper suggests the first power managing and provisioning technique can be adapted to cluster-sized system. By using these methods a company can efficiently use their power resource such as deciding whether deploy more nodes or not.
(3) **any suggestions to improve their idea:** They should implement tools to manage power and energy easily.

2 Eprof : *Where is the energy spent inside my app?*

(1) **summary of the paper:** This paper targets smartphone application's power consumption especially on Android and Window OS. The key feature on the smartphone app is asynchronous power behaviour. They designed a tool named *Eprof* to detect bugs and profile program. By using *Eprof*, they found problems and energy usage trends, than they fix it and get performance increase.
(2) **strengths/weakness of the paper:** Smartphones have limited power because of its size, so analyzing power consumption and optimizing program is really needed. *Eprof* would helps programmer a lot.
(3) **any suggestions to improve their idea:** It is just a profiling tool, I don't know how to improve their idea. But, I feel bundle method is not that accurate and it has much less power than gprof.