

Is keepalive optimization an incentive for PCP?

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Does PCP PEER optimize anything?

- Simply using PCP instead of an app-layer message doesn't optimize for power
- Power is optimized if keepalive messages (whether PCP or app-layer) are sent less often
- App-layer keepalive messages typically need to be sent anyway to keep server state alive
- **Using PCP only optimizes power if PCP PEER interval is strictly longer than what the app would normally use to keep middlebox state alive, and strictly shorter than the server state refresh interval**

What does app have incentive to do already?

- PCP is not ubiquitously deployed in every middlebox already (obviously)
- App has to have its own keepalive mechanism regardless
- To optimize power, some apps already do their own dynamic detection algorithm
 - e.g., [RFC4380] section 5.2.7 has one such algorithm, and undoubtedly there are others
- Such algorithms are what all apps (or libraries that would do PCP) probably ought to be doing anyway
- Using PEER could help algorithm converge more quickly, but power savings is probably negligible

What should the WG do?

- With such an algorithm, using **PCP PEER only provides benefit when middlebox gives a longer mapping timeout** as a result of using PCP than for connections without PCP
- Currently no recommendation to do so. Should there be?
 - If so, in which doc?
 - If not, what's the point?