Plasma Mobile Power Management

Sleep, wake-up, repeat..

Bhushan Shah
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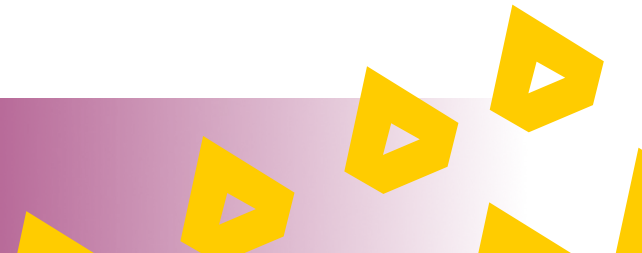
Berlin, Germany

Traditional power saving

Or how things used to be in good-old days

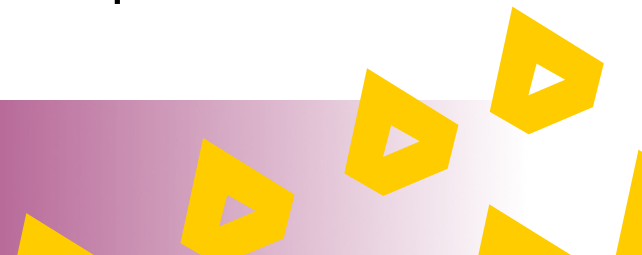
- Occasional suspend which lasts for long time
- Mostly used for overnight power saving or if you are commuting for example
- No persistent connection or “timed” actions to take (more on this later)
- Battery were huge & bulky and were capable of storing more “power”



New-age power saving

Oh how tables have turned

- Time spent in suspend is relatively very short (average of about 15-20 minutes in “morning hours”
- Every minute of power-saving is useful
- Persistent internet as well as telephony network connections which require us to wake-up device periodically
- Battery are much smaller compared to e.g. laptop batteries
- New infrastructure such as s2idle, runtime suspend, cpuidle etc.



Making Plasma Mobile ready

Work done in last few months

- Fix the alarm timer support on musl libc
- Add support for identifying wake-up sources and do dark resume if event may not be relevant to user
- Fix the kunifiedpush-distributor breaking after suspend-resume cycle
- Fix modem device waking up device on unsolicited events
- Fix rotation sensors polling even when display was turned-off (and using CPU cycles)
- Making use of the proximity sensor to avoid display turning-on when in pocket

Making Plasma Mobile ready (+1)

Work to be done in next few months

- Adding support for configuring the WoWLAN and IPA to wakeup device on push notifications
- Periodical wake-ups for checking push-notifications if WoWLAN or IPA wakeups are not supported
- Support for runtime-suspend for various peripherals (i.e. releasing peripherals when they are not being used)

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THANK YOU