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Coexistence-Aware Scheduling for LTE and WLAN During Hard In-Device Interference

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The Problem

- ▶ Put LTE and WLAN radios into a smart phone and you get severe inter-radio TX→RX interference
- ▶ Most problematic band combinations:
 - ▶ WLAN: 2.4 GHz
 - ▶ LTE bands: 7, 40, 41
- ▶ Global importance, 3GPP IDC work in progress

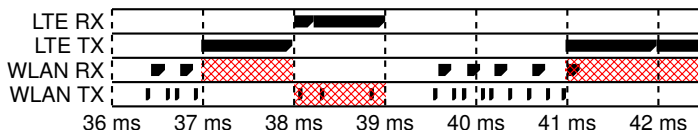
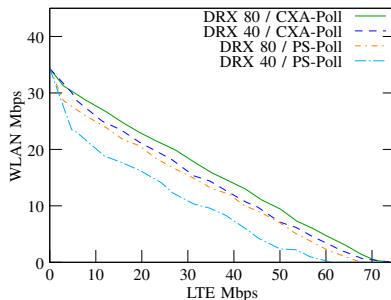


Figure : WLAN RX desensitized by LTE TX; WLAN TX prevented by LTE RX

The Solution

- ▶ Coexistence-aware radio scheduling
- ▶ Proposed extensions:
 - ▶ LTE DRX scheduling duration: make gaps by throttling
 - ▶ WLAN CXA-Poll: adapt to interference-free gaps

Case 2: PS-Poll vs. CXA-Poll



Case 4: Performance with LTE DL/UL masks

