

Background and Motivation

Bridge RF-Powered Device with Internet

- Some primitive ideas:
 - Can we ask RF-Powered Device to Directly use WiFi just like my iPad? **✗** can't ask a kid to fly a jet

*Wifi Protocol consumes orders of magnitude more power
than what is available in ambient RF*

- Can we add a Transfer Station that support both Internet access and RF communication? **✗** seems practical, but lose our advantage of low deployment cost

*Need to deploy an extra special-purpose
powered infrastructure devices*

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Bridge **RF-Powered Device** with **Internet**

- Idea proposed in this paper:
 - still let RF-powered device access Internet through WiFi
The cheapest way to access Internet
Wifi is everywhere nowadays
 - But use WiFi in a **non-WiFi** manner: Wi-Fi Backscatter
 - what does this mean?