

“No, I Can’t Be a Security Personnel on Your Phone”: Security and Privacy Threats from Sharing Infrastructure in Rural Ghana

*44th USENIX Security Symposium, 2025
Seattle, WA, USA*



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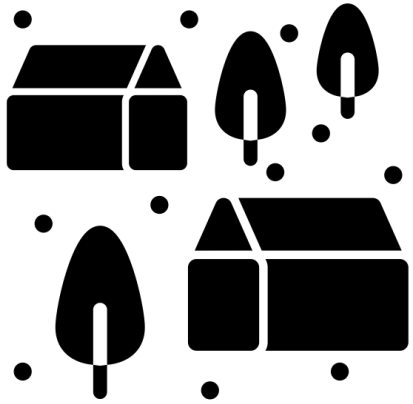
WASHINGTON, DC

What About Ghana?

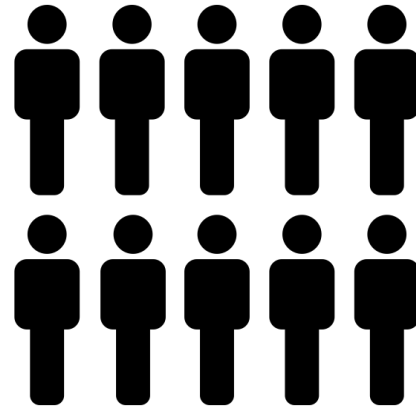


- Country in West Africa, with 43% of the population being rural.
- Limited electricity and network coverage.
- Communities devise workarounds to access electricity and network.
- However, these workarounds introduce serious security and privacy risks!

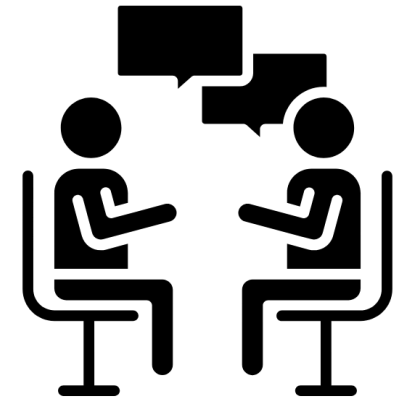
Methods



5 rural communities
with limited electricity
and network



Recruited 10
electricity providers
and 31 clients



Field interviews
with participants

Electricity Access



Local charging center

Workaround: Reliance on charging stations to charge devices.

Concern: Unauthorized access of information e.g., SMS.

Protective measure: Moving SMS from inbox to outbox.

Network Access



Users at a “network zone”

Workaround: Reliance on “network zones” e.g., nearby farms.

Concern: Eavesdropping.

Protective Measure: The use of multiple languages.

Implications

- Need for **low-cost** charging management protocols.
- More consideration of **feature phones** in privacy research.
- Rural **infrastructure** acceleration over educational interventions.

