

Encryption and Privacy

Embedded Ethics Lecture

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WHO?

Limiting surveillance by whom?

WHAT?

Restricting access of what?

WHERE?

Protecting in public or private space?

Privacy involves...

- a. limiting surveillance
- b. restricting access
- c. protecting personal places

Helen Nissenbaum: Privacy as Contextual Integrity (2004)

Principles on privacy

Who collects our info?

- scammers trying to steal credit card info?
- companies trying to profit?
- gov't trying to quell resistance?

What info collected?

- SMS
- call logs
- phone number
- location

Where info collected?

- physical space: at home, at work, in public, in which nation
- digital space: in group message, DM



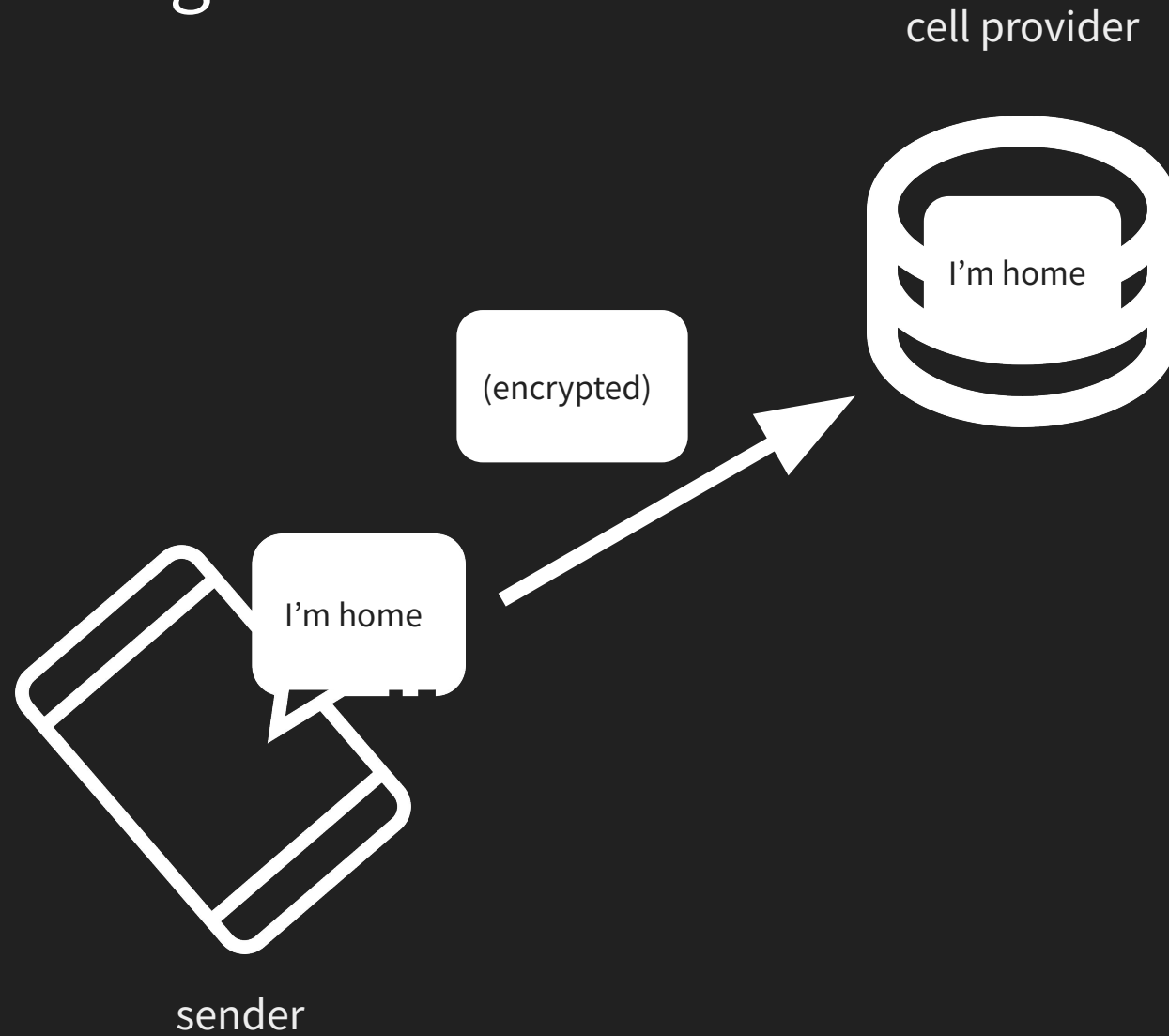
US gov't may have used cell-site simulators to identify protesters at Standing Rock (2016)

Sending an SMS text

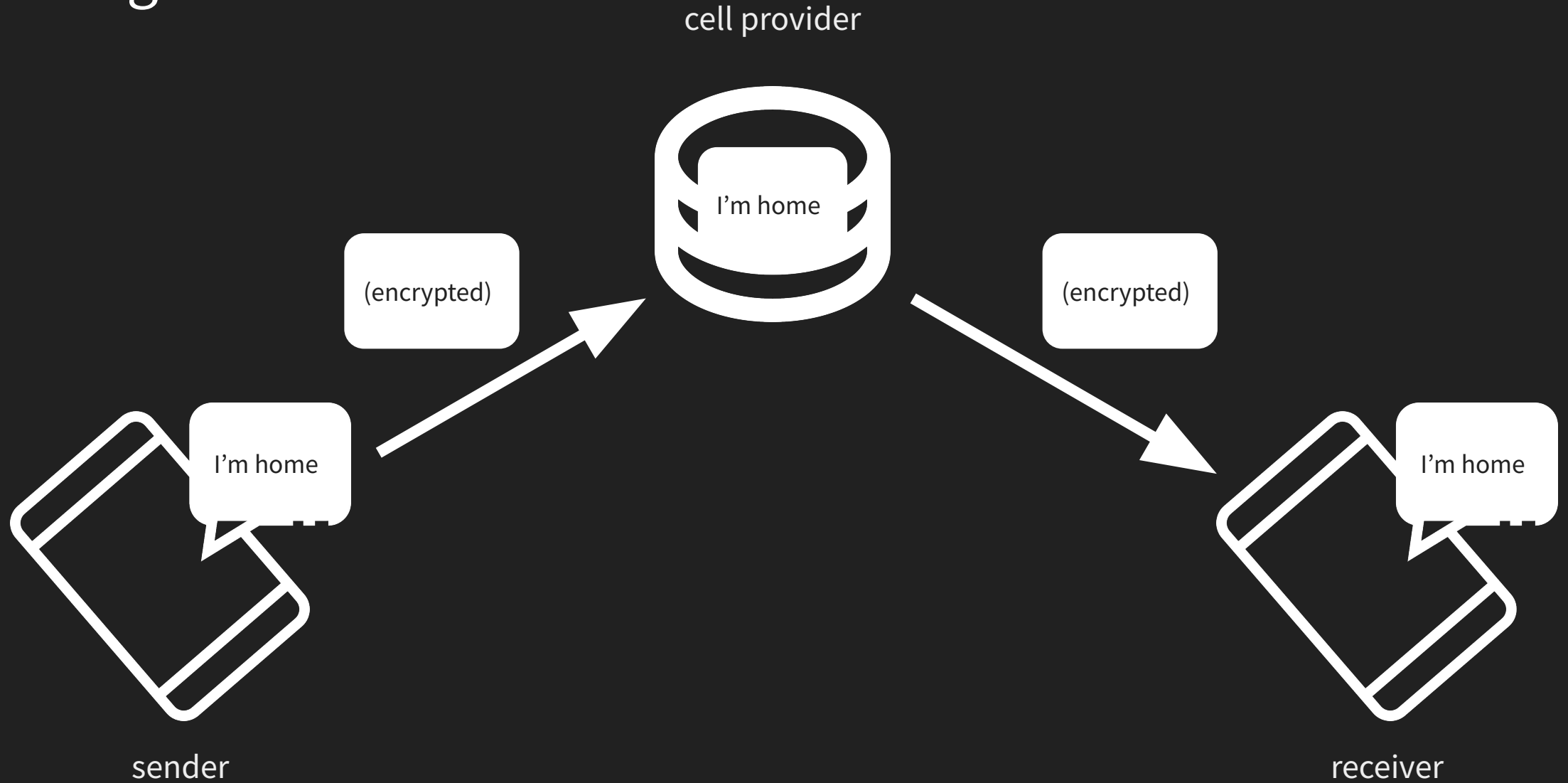


sender

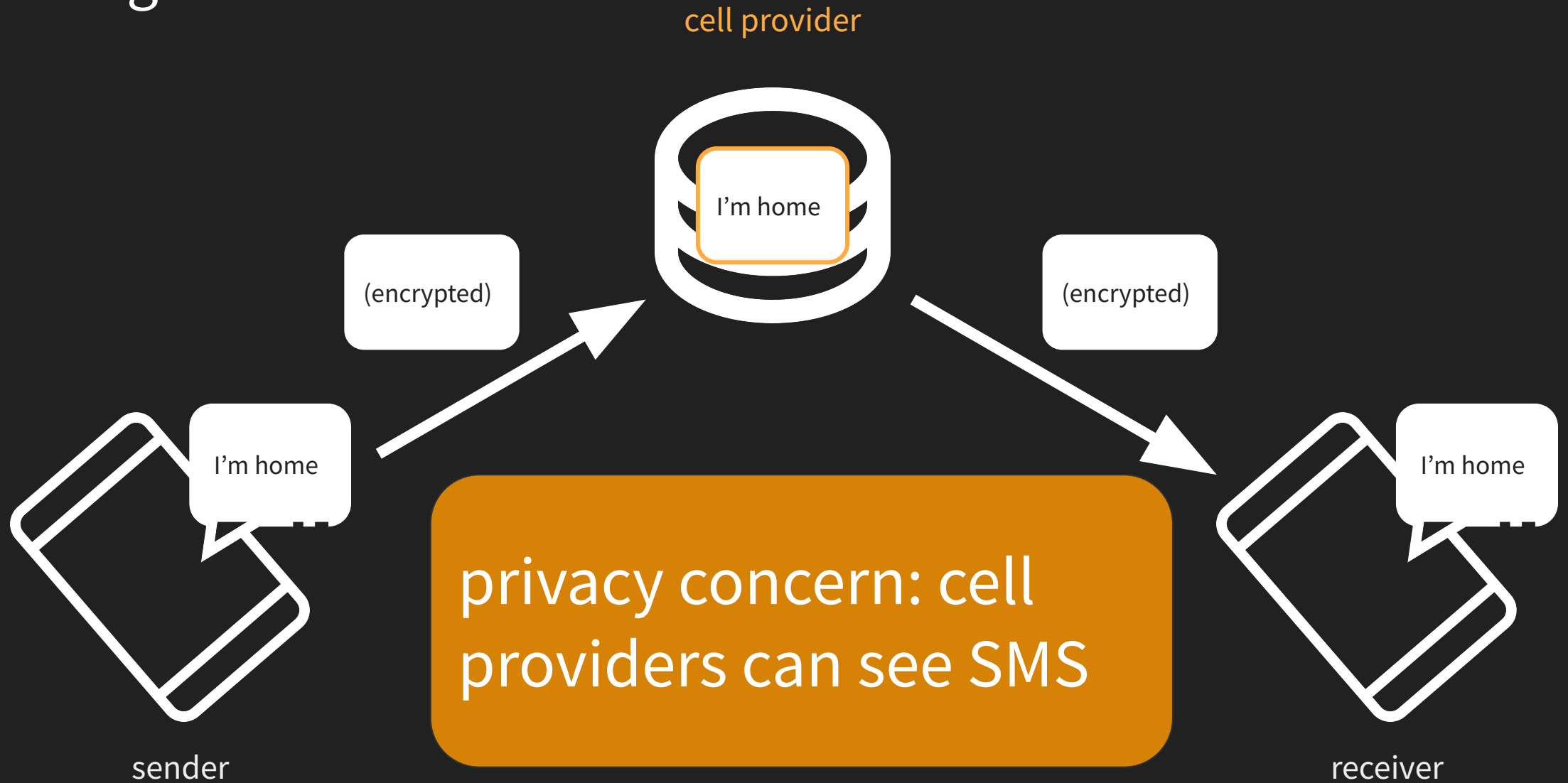
Sending an SMS text



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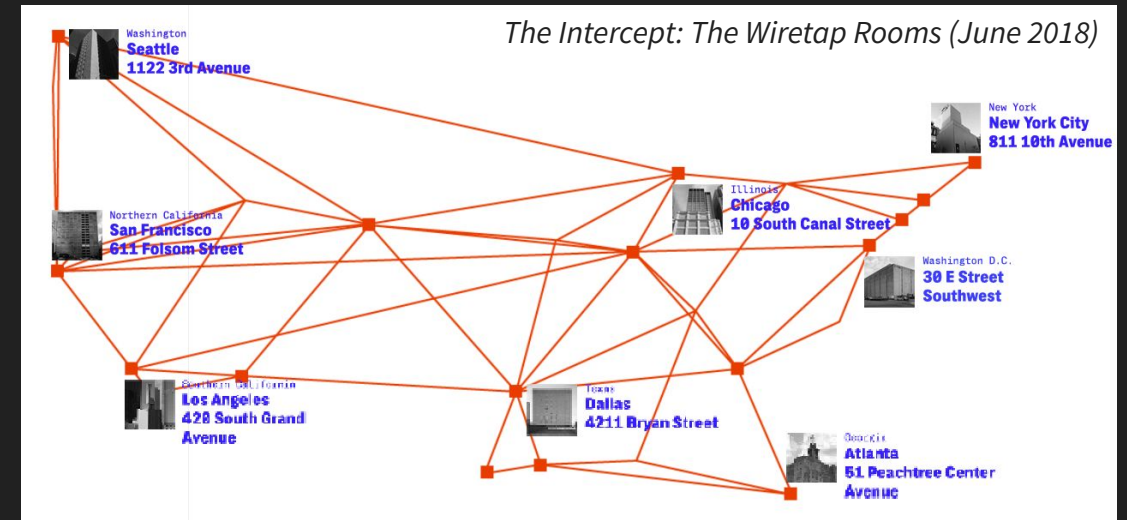
Sending an SMS text



Cell providers share data with gov. Privacy concern?

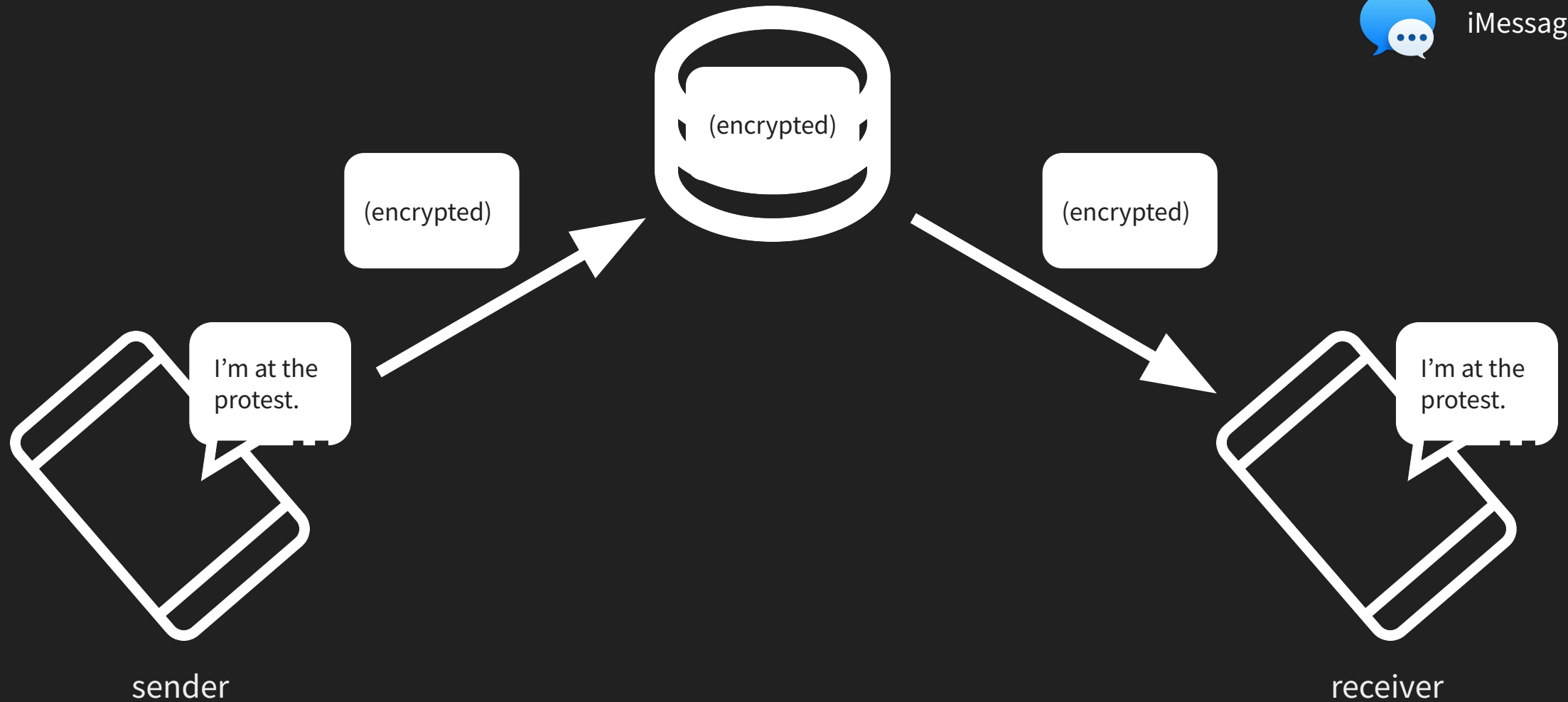
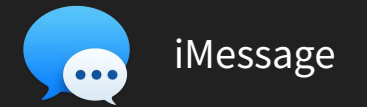
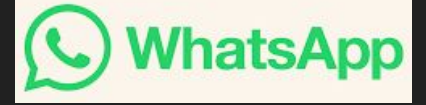
Who has access and under what conditions?

- a. warrants may request SMS data (2013: Verizon received 14,500)
- b. AT&T shared SMS data w/ NSA for surveillance of US citizens
- c. Verizon required to collect phone records of customers for NSA



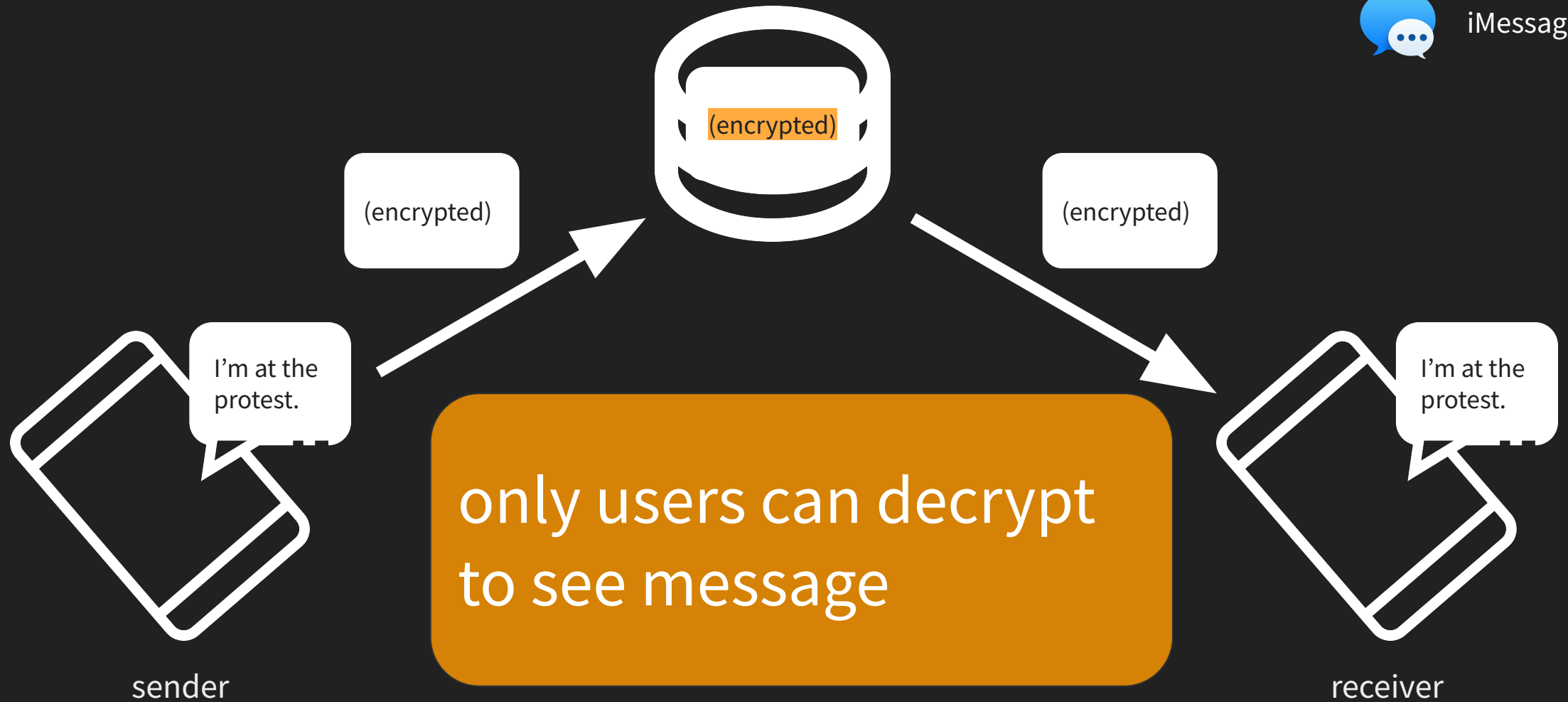
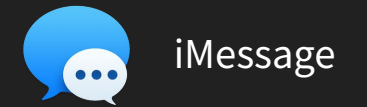
Sending an end to end encrypted (E2EE) text

service provider



Sending an end to end encrypted (E2EE) text

service provider



E2EE doesn't solve privacy

- ends (phones) are vulnerable
- metadata (call logs, phone number) could still be collected
- limitations to apps
- all encryption is vulnerable



Telegram

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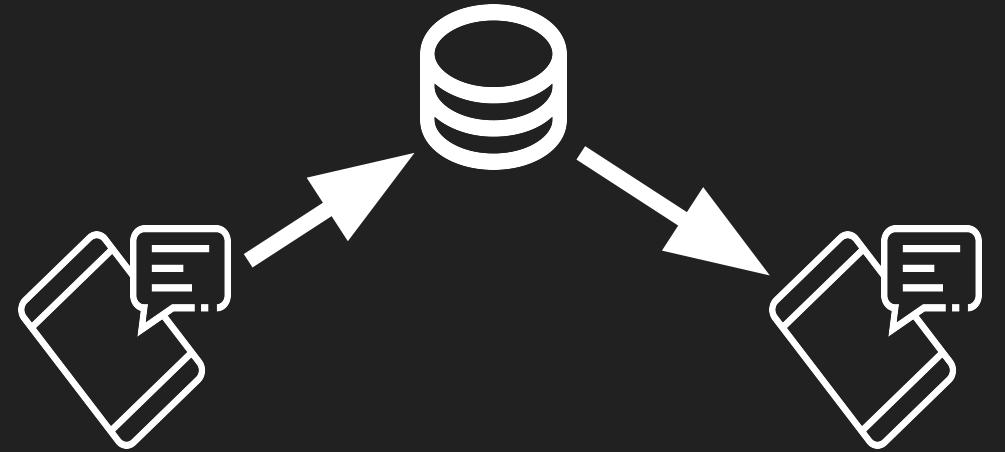
The Kremlin Has Entered the Chat

Russian antiwar activists placed their faith in Telegram, a supposedly secure messaging app. How does Putin's regime seem to know their every move?

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- Privacy involves...
- a. limiting surveillance
 - b. restricting access
 - c. protecting personal places
 - d. consideration of context



Helen Nissenbaum: Privacy as Contextual Integrity (2004)