

Can clouds be trustworthy?

– or –

Can I store private data remotely?



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CASED

Problems...



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The Washington Post

Mark Zuckerberg's theory of privacy



“If people share more, the world will become more open and connected. And a world that's more open and connected is a better world.”

facebook®



View Photo Gallery — Facebook's phenomenal rise: Facebook has grown from a project hatched in a college dorm to the largest social-networking site in the world.

More problems...

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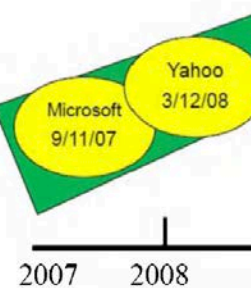
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Encryption



- Much of communication through the Internet is encrypted
- A targeted interception of encrypted communications is expensive and physically difficult
- Your target's communication path – predictability is not easily broken through

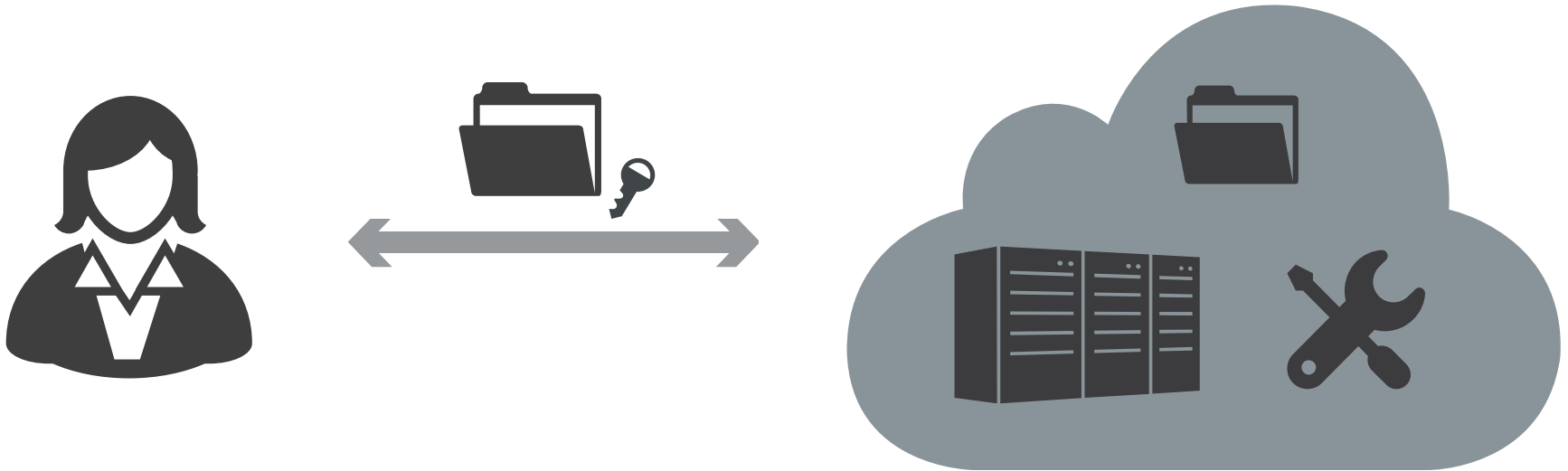


- Show me all the encrypted word documents from Iran
- Show me all PGP usage in Iran

- Once again – **data volume too high** so forwarding these back is not possible
- **No strong-selector**
- Can perform this kind of retrospective query, then simply pull content of interest from site as required

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Trustworthy outsourcing of storage and computation



Outsourced data is prone
to attacks

User loses control

Technical solutions support privacy during processing

Questions for the panel



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Is **cryptography** of any use?

What about **hardware-assisted** solutions?

Would customers **buy** such cloud services?

Do we have to care? Will the **“cloud hype”** last?

