

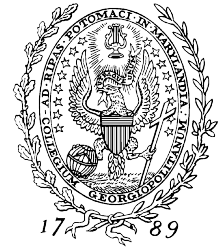
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Secure Communications: Creating an Internet Out of Secure Islands



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Executive Director, Georgetown Center for Secure Communications

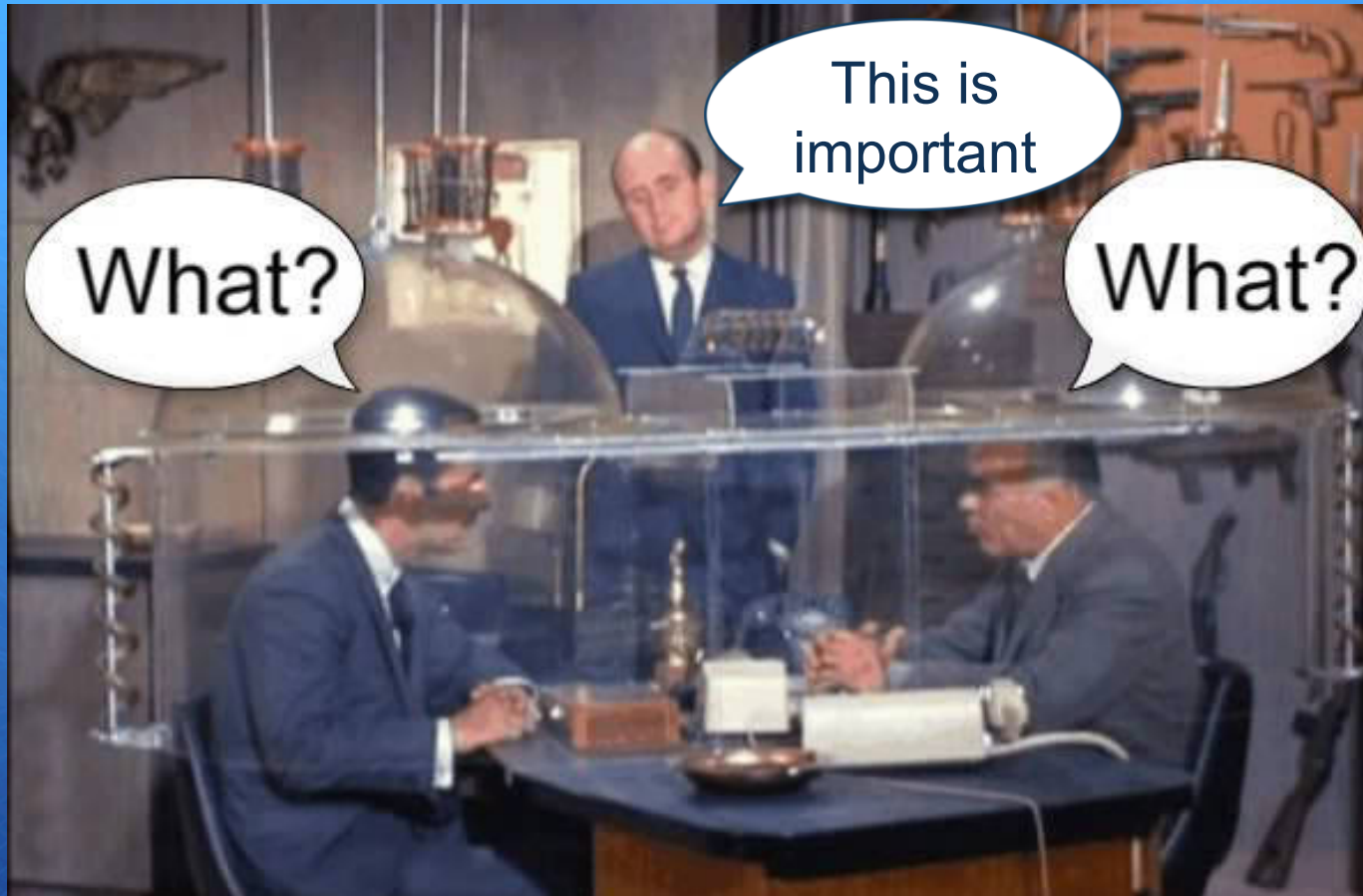
Classic Cybersecurity Approach





Islands of Secure Communication



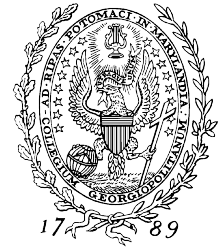


Feature is a Bug

Extremely difficult, if possible at all, to securely communicate with partners



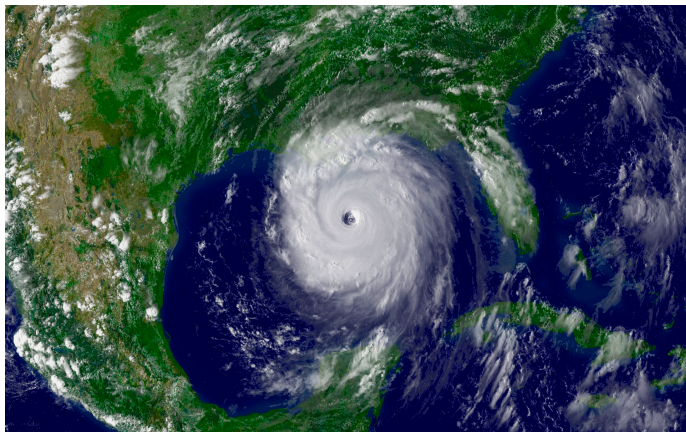
Drivers for Secure Interconnection



White House Photo, Chuck Kennedy



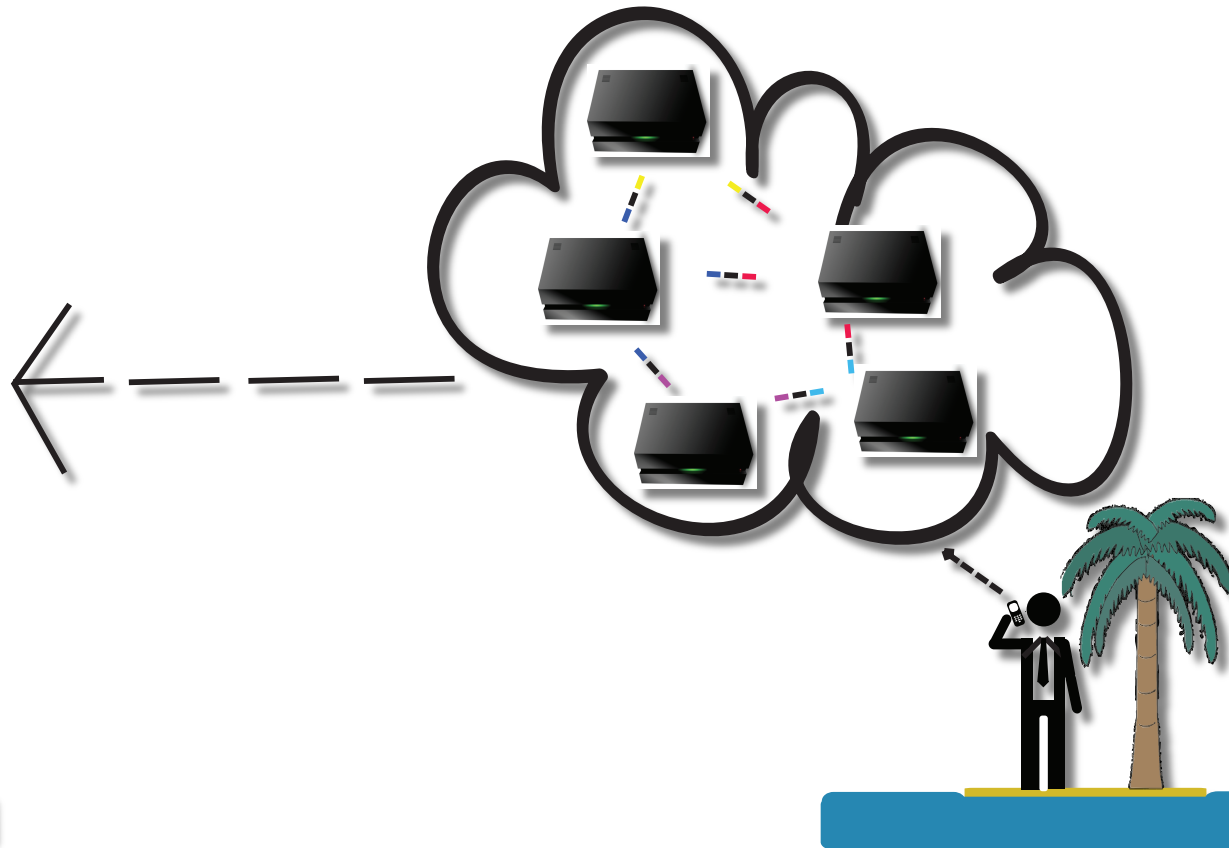
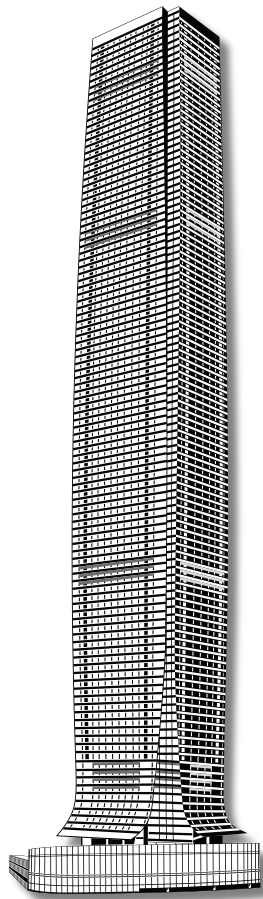
CIA Photo



NOAA Image



Air Photo Service Co. Ltd., Japan

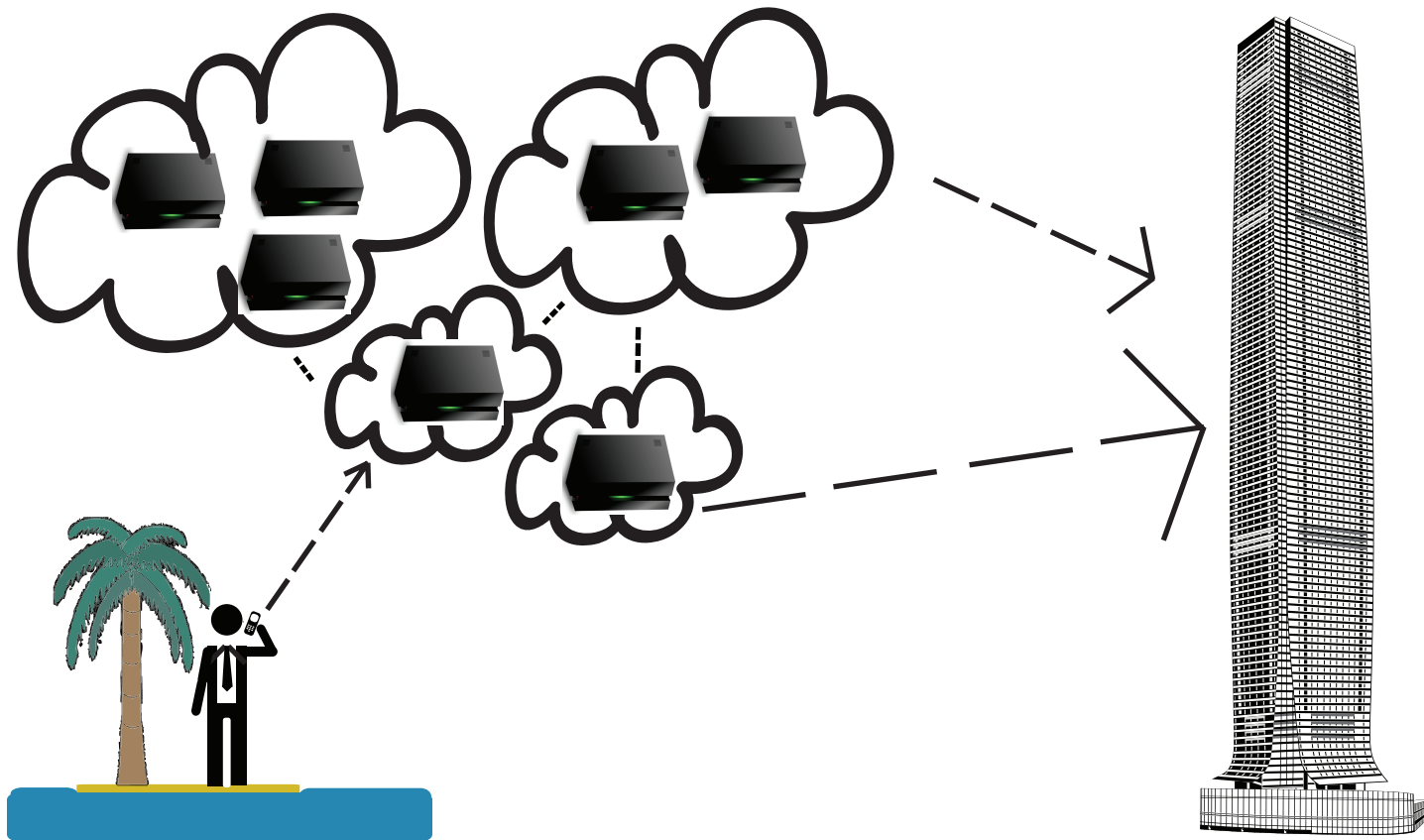
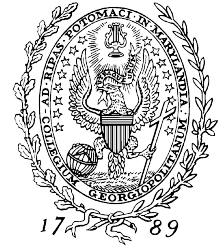


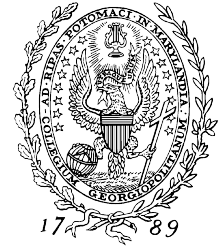
Modern Communications Landscape

- Mobile workforce
- Global operations
- Cloud communication services



It Gets More Interesting





"Easy" Technology Problems

+ Incompatible media types



+ Incompatible signaling



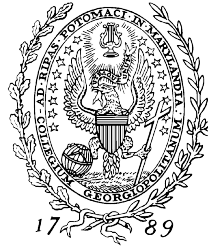
+ Incompatible key exchange





Is This The Solution?

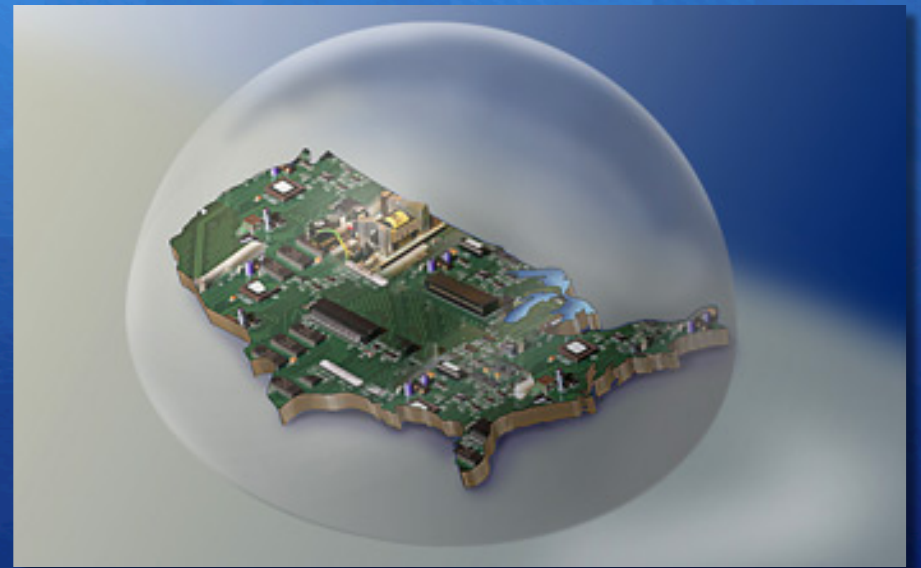




Policy Problems

Single vendor, single network?

- Solves media, signaling, key exchange
- What about directories and addressing?
 - Role-based addressing?
 - Phone number addressing of IP devices?



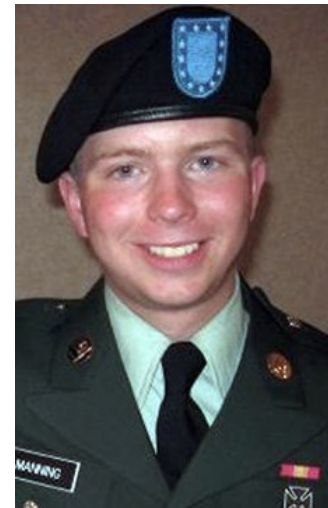
Today's Solutions

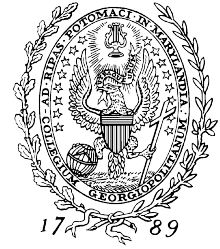


Hand-Code Policy



We're All Equals





What Needs to Be Done

- + Sort through technical details of transport, signaling, and key exchange
- + Sort through trust issues
- + Develop policy framework
 - + Multiple enterprises with varying trust relationships
 - + Various zones of security
 - + Enable interconnect
- + Develop protocols to implement policy framework



Thank You

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