

How does your Wifi toaster impact international security?

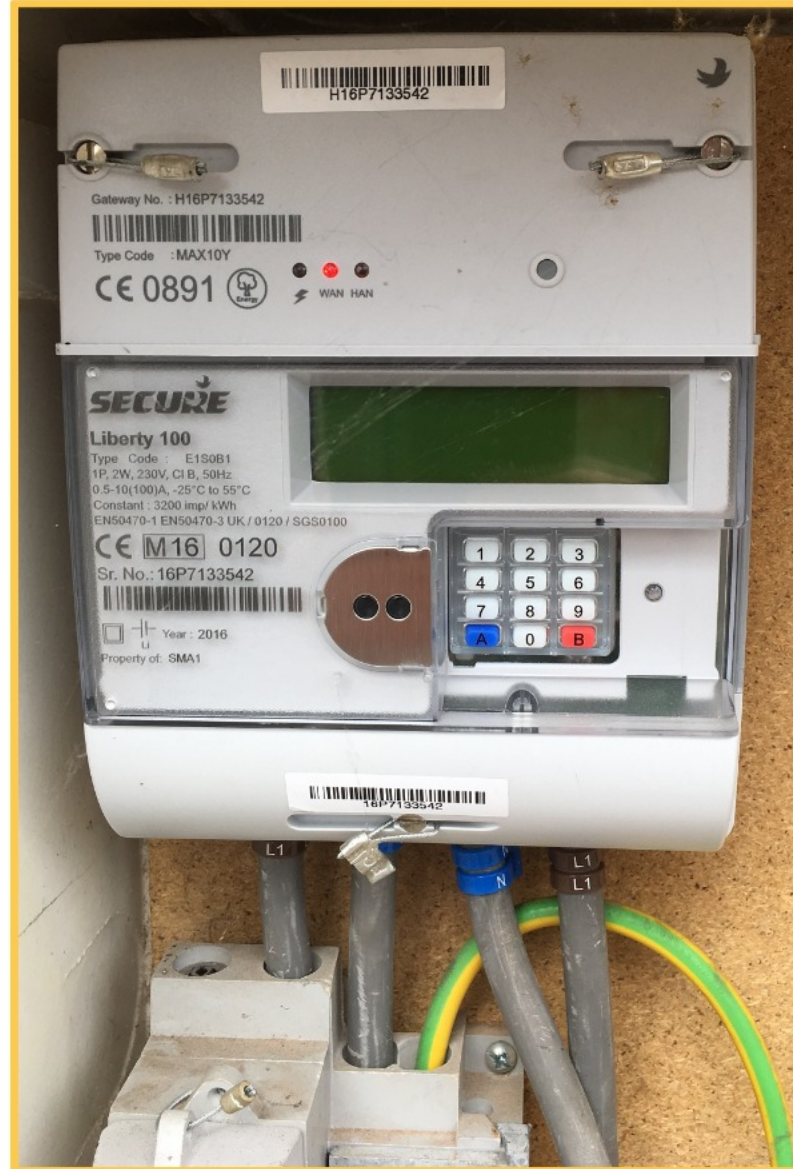
– Jan-Peter Kleinhans –
Project Director IoT Security



Everything is a computer..



DefendTex Drone-40



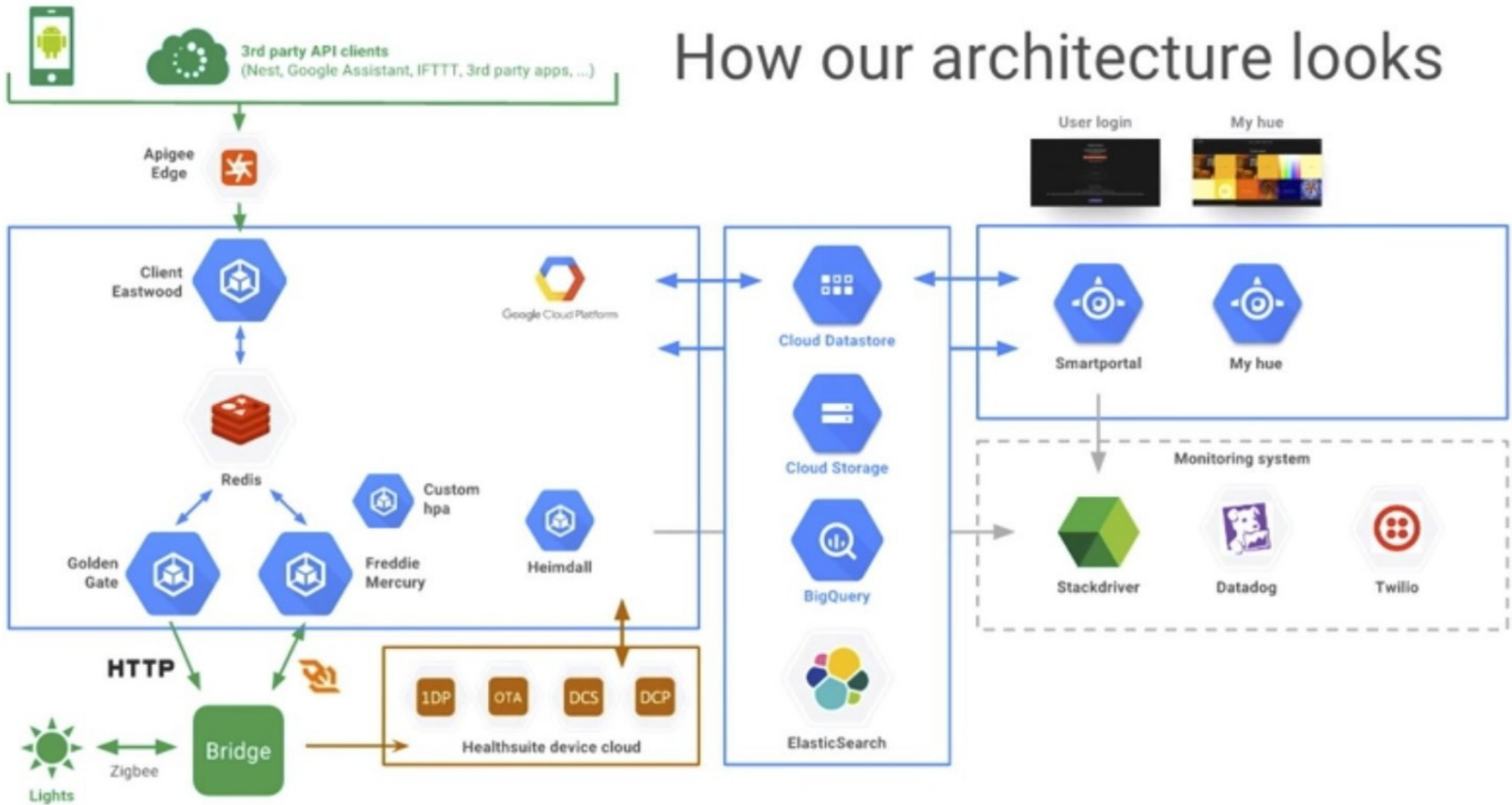
Secure Liberty 100



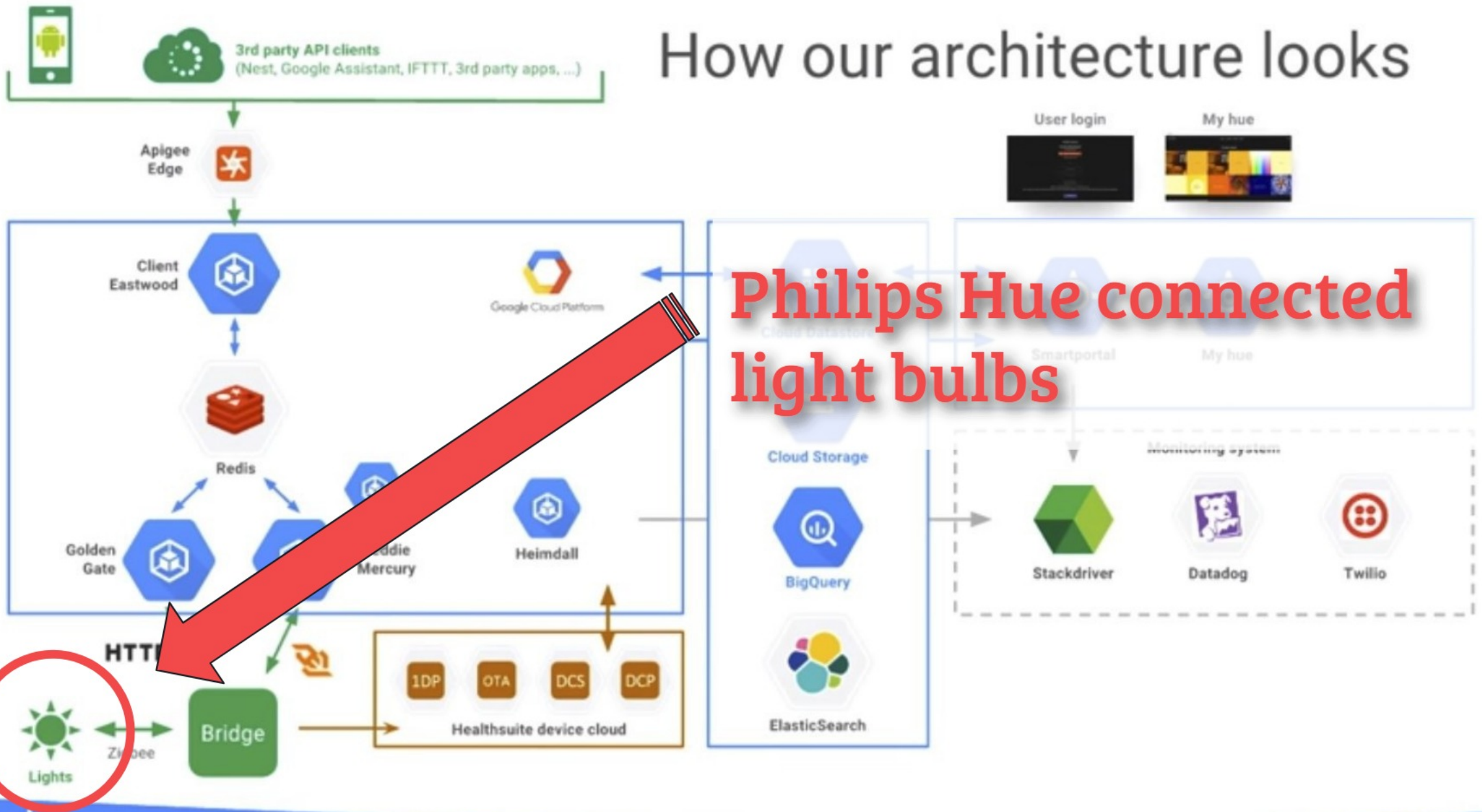
Charlie Miller, Chris Valasek
(Jeep Cherokee)

**... and computers are
COMPLEX.**

How our architecture looks



How our architecture looks



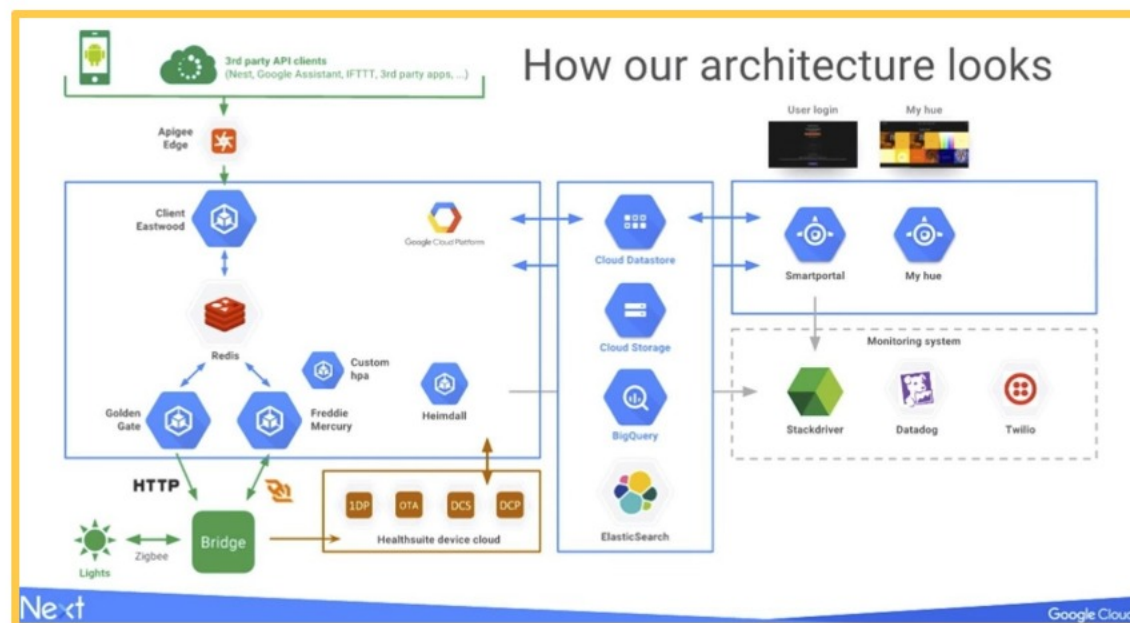
Philips Hue connected light bulbs

Next

Google Cloud

Philips Hue cloud infrastructure, <https://youtu.be/Csf-gxjo4hc>

Complexity is the enemy of security.



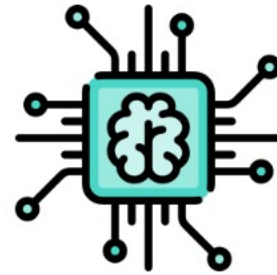
- increased **attack surface**
- higher **interdependencies**
- **cascading damages highly likely**
- highly complex **risk assessment**



It's **NOT** about the security of a **THING**.



Standards



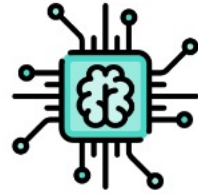
Implementation



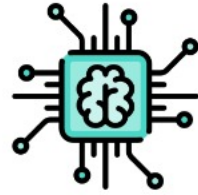
Configuration



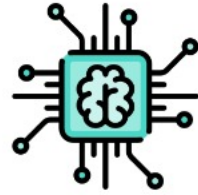
Processes



**Keeping a hyperconnected society safe
is a **shared responsibility.****



Q: Can we trust that everybody is doing the right thing?



A: Of course **not.**

Key challenges when **everything** is a **computer**:

- How to assess **trustworthiness** of device/vendor/operator?
- How to identify **interdependencies** & assess **risk**?
- Can we afford **non-digital fail-safes** / fall-backs?
- Forward-looking vs **retrospective** measures?



Mark Cancian, 2018

Coping with Surprise in Great Power Conflicts

[csis.org/analysis/coping-surprise-great-power-conflicts](https://www.csis.org/analysis/coping-surprise-great-power-conflicts)

Page 109, Vignette #4, "Assassin's Mace"

**IN THE ERA OF ELECTRONIC WARFARE,
BRING BACK PIGEONS**

FRANK BLAZICH
JANUARY 16, 2019
COMMENTARY



Frank Blazich, 2019

In the Era of Electronic Warfare, Bring Back Pigeons

<https://warontherocks.com/2019/01/in-the-era-of-electronic-warfare-bring-back-pigeons/>