Ozvěny 29C3

29th Chaos Communication Congress

Pavel Růžička
ruza@ruza.eu

Brmlab, hackerspace Prague
http://brmlab.cz.

3.1.2012 / Brmlab, Lightning talks

WTF

Chaos Communication Congress

- organized by Chaos Computer Club since 1984
- venue
  - Hamburg, 1984-1998
  - Berlin, 1984
  - Hamburg, 1985-1997
  - Berlin, 1998-2011
  - Hamburg, 2012

`https://events.ccc.de/congress/`

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Congress Center Hamburg

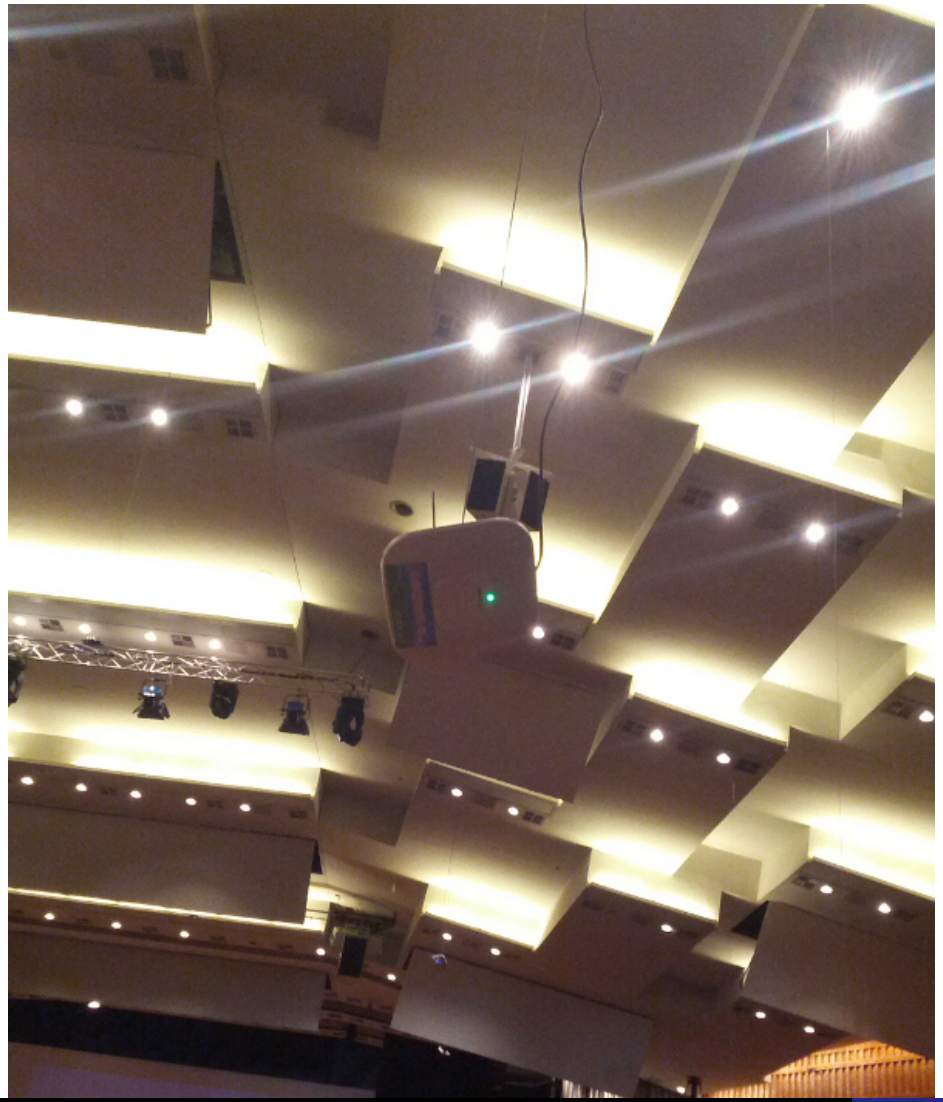
CCH -> CCC

brmlab hackerspace prague

Congress Center Hamburg, Saal1

Congress Center Hamburg

access points



Jacob Appelbaum - Not my department

http://events.ccc.de/congress/2012/Fahrplan/events/5385.en.html

- NSA datacenter Utah

National Security Administration building construction near Bluffdale, Tuesday, March 20, 2012. (Ravell Call, Deseret News)

Jesselyn Radack, Thomas Drake, William Binney

http://events.ccc.de/congress/2012/Fahrplan/events/5338.en.html

- Enemies of the State: What Happens When Telling the Truth about Secret US Government Power Becomes a Crime
- ”I Am A Whistleblower”

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Christie Dudley - Privacy and the Car of the Future

http://events.ccc.de/congress/2012/Fahrplan/events/5095.en.html

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- DSRC: Digital Short Range Communications (380m)
- The US Dept. of Transportation is considering mandating this for all new cars.
- Basic safety messages sent out every 10 seconds.
- 5.9GHz reserved in US and Europe.
- Signaling standard: IEEE 802.11p
- All messages are cryptographically signed
- Signing certificates issued by central authority
- Privacy issues: Correlate location, speed to independent identification?
- All zero source address for vehicles. Unrouteable
- Any algorithm to make network routeable will make vehicles trackable.

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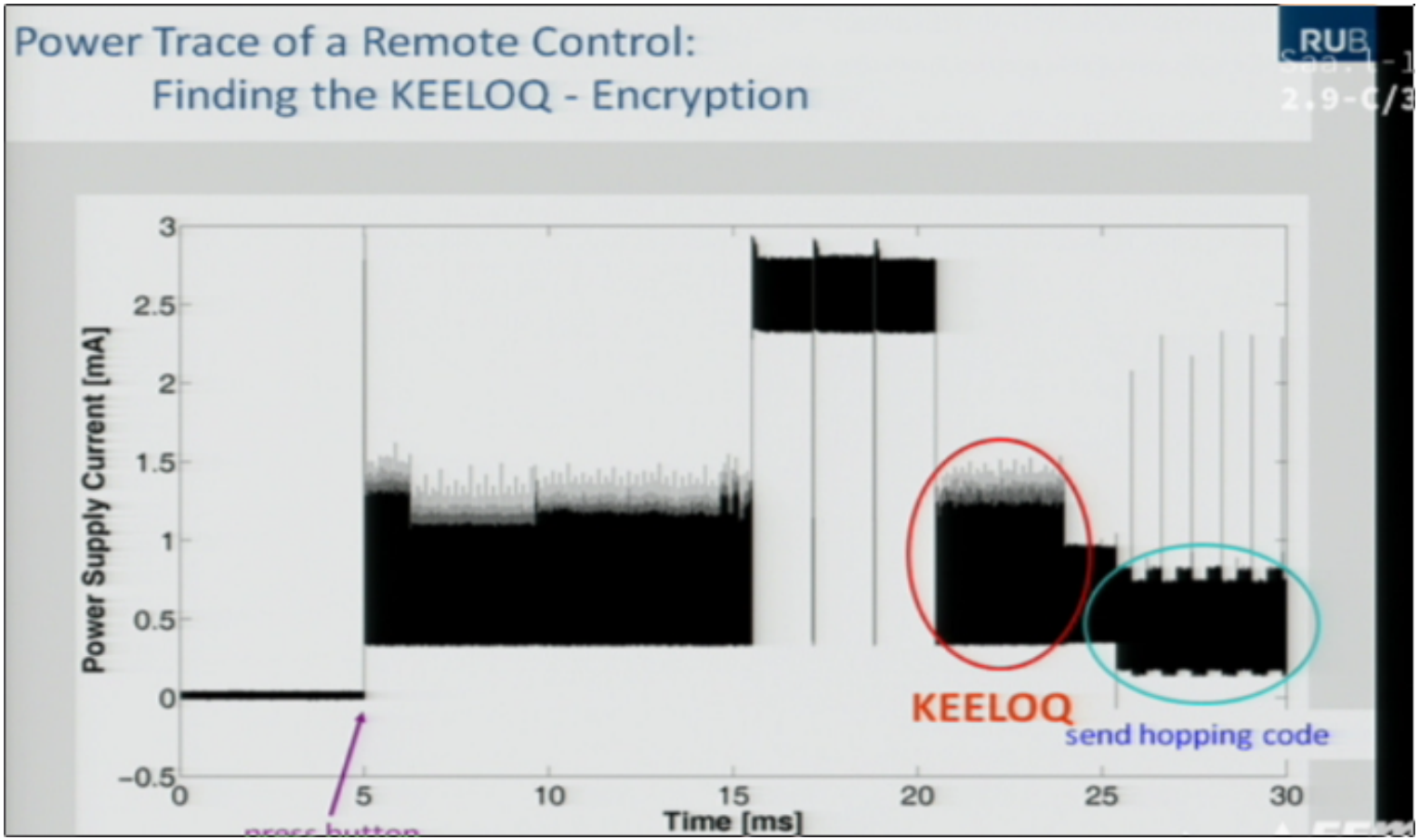
Timo Kasper - Milking the Digital Cash Cow, 2008

http://events.ccc.de/congress/2012/Fahrplan/events/5393.en.html



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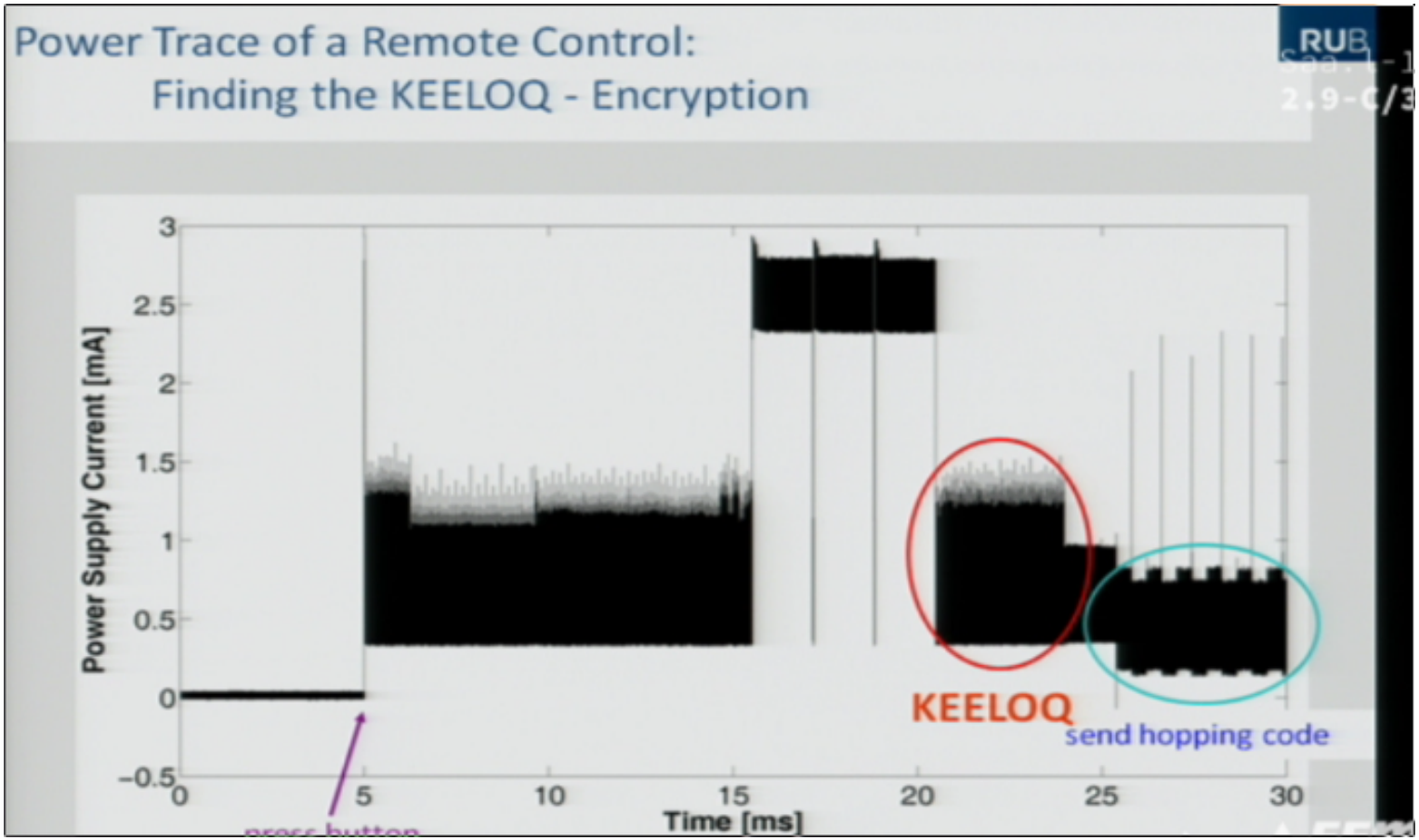

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- 3DES for authentication and data encryption
- 4kB non-volatile memory
- 28 aplications/folder with 16 files max each
- 14 keys per app, 1 master key

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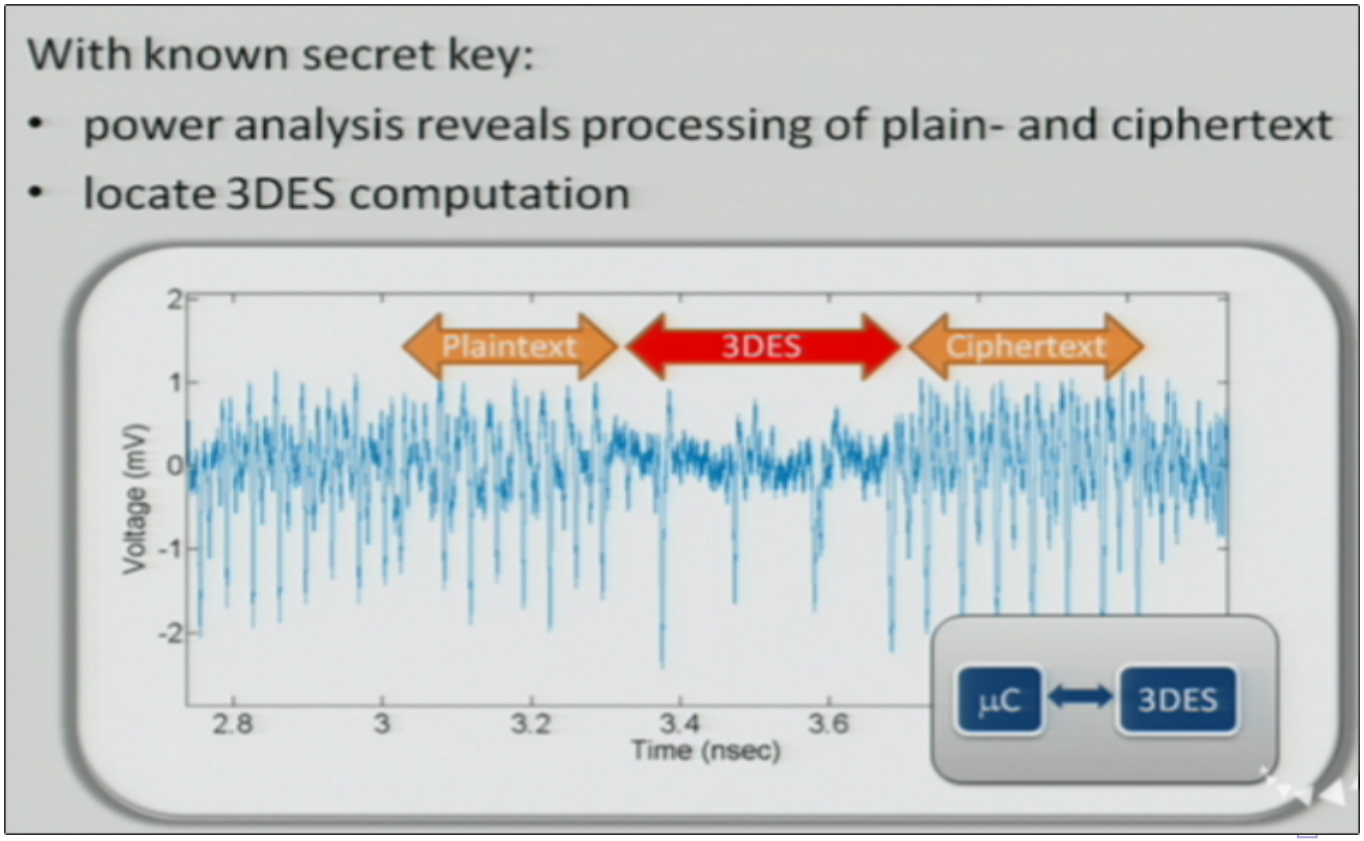
- after demodulation a low pass filtering
- equipment <2000€



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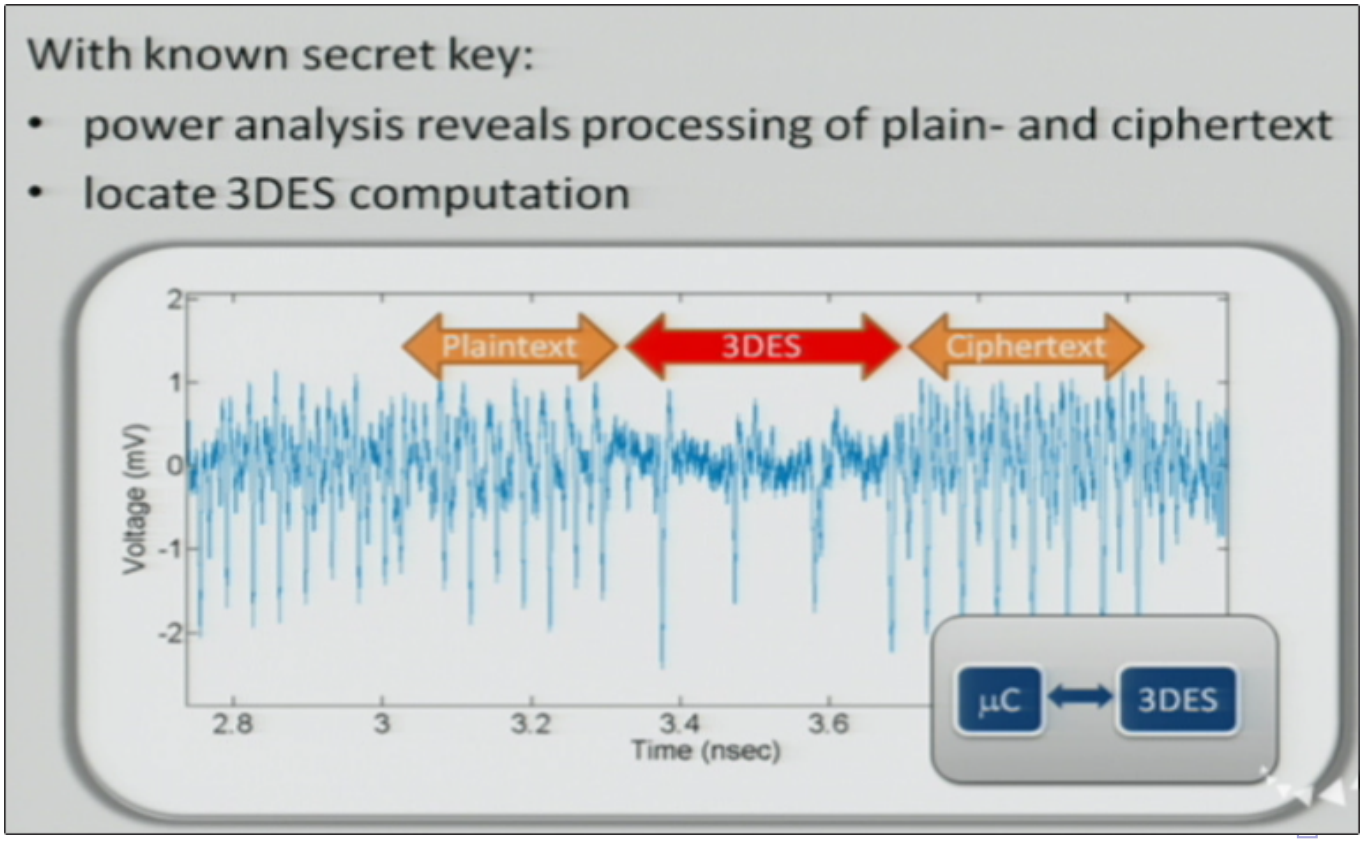

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DESFire MF3ICD40 discontinued and replaced by DESFire EV1 (released 2009)

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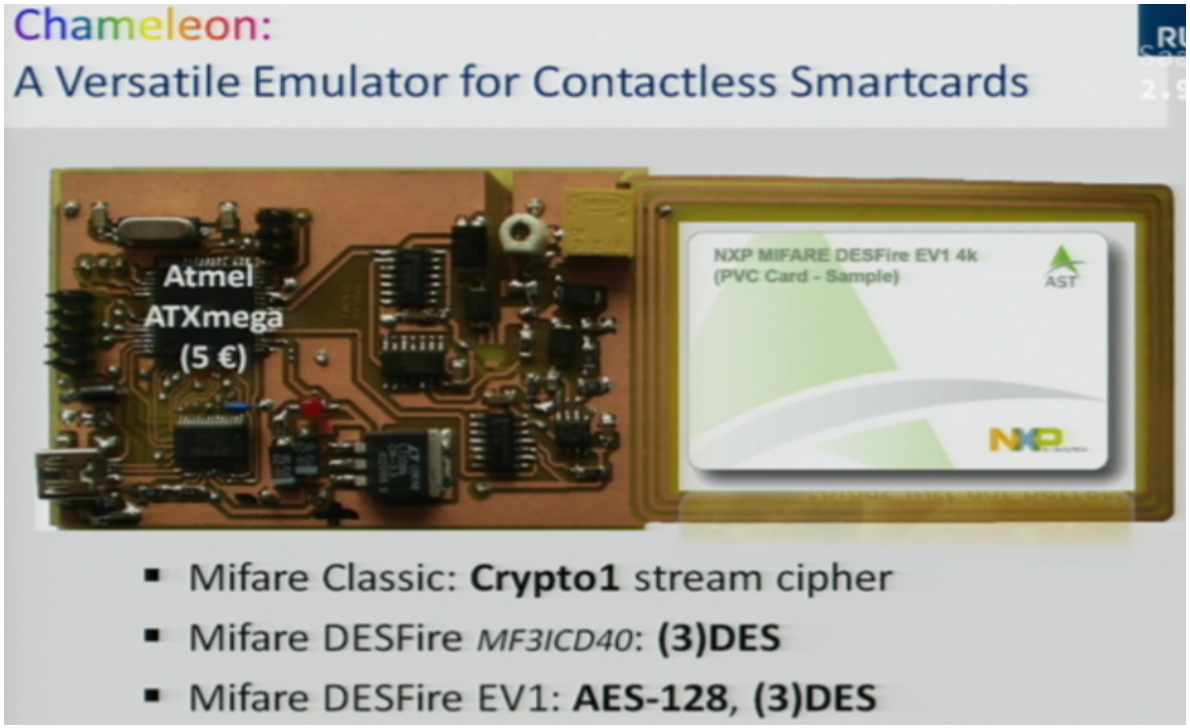
- Chameleon, can emulate UID



`http://sourceforge.net/projects/reader14443/`

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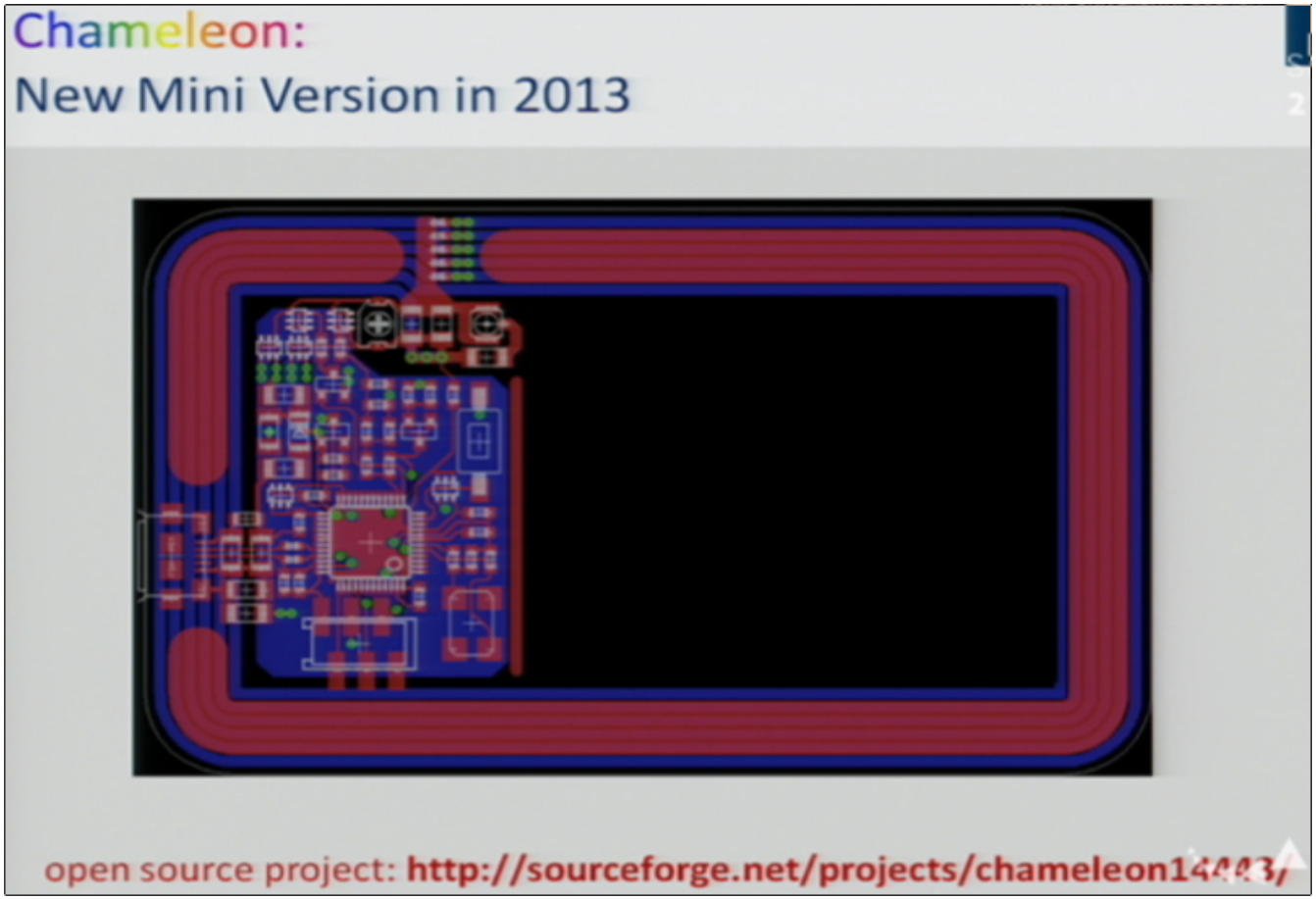

James Forshaw - ESXi Beast

http://events.ccc.de/congress/2012/Fahrplan/events/5104.en.html

- Vmware vSphere client, Vmware Auth Daemon over tcp/443
- datastore browser, NFC protocol tcp/902 communication unencrypted
- CANAPE - protocol analyzer, Win based, network protocol analysis tool, interception proxy
- TCP and net graph
- interception proxy, password bruteforce, fuzzin'
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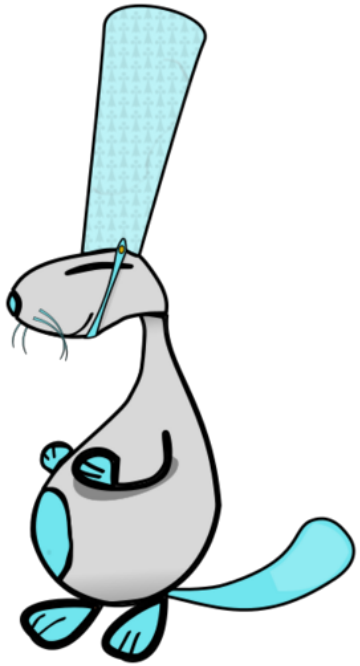
Frédéric Guihéry, Georges Bossert - The future of protocol reversing and simulation applied on ZeroAccess botnet

http://events.ccc.de/congress/2012/Fahrplan/events/5256.en.html

- message format, state machine
- Netzob



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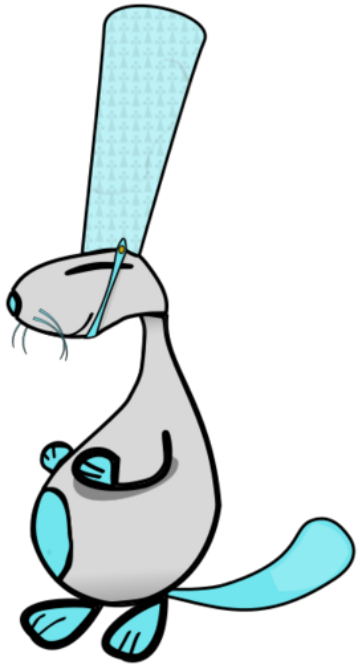


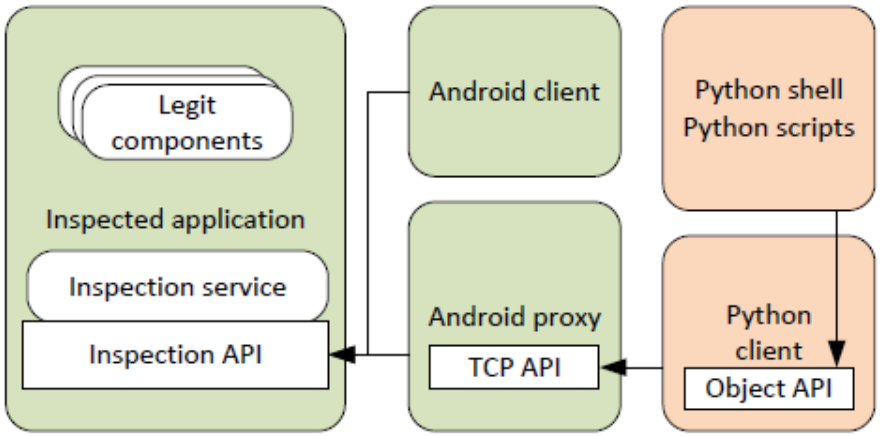
Pierre Jaury, Damien Cauquil
Small footprint inspection techniques for Android

Fino
'cause we finally built some tool

Fino Low footprint inspection service

Gadget Android-side API proxy

Client Python object oriented API and interactive shell



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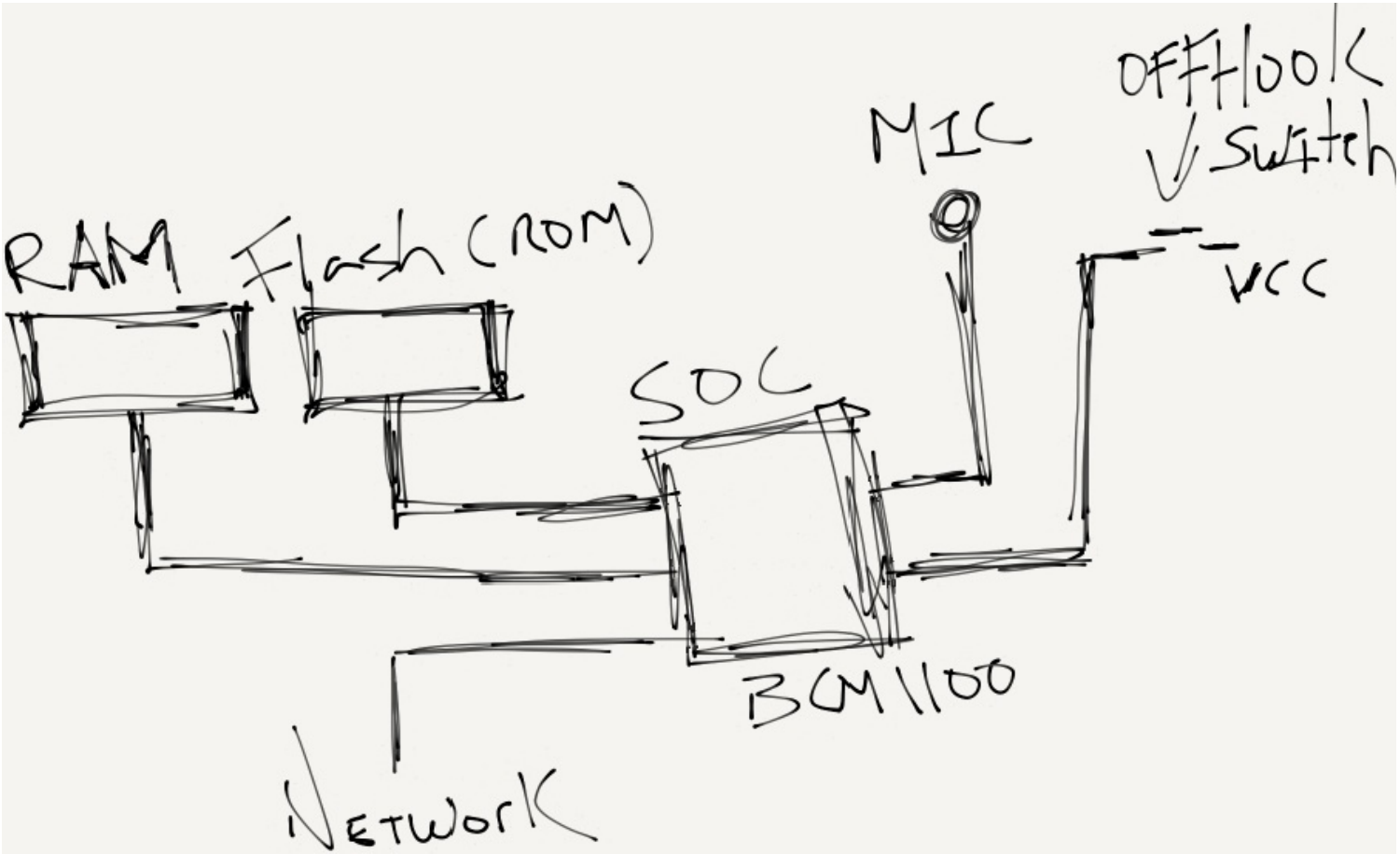
Ang Cui, Michael Costello - Hacking Cisco Phones

http://events.ccc.de/congress/2012/Fahrplan/events/5400.en.html



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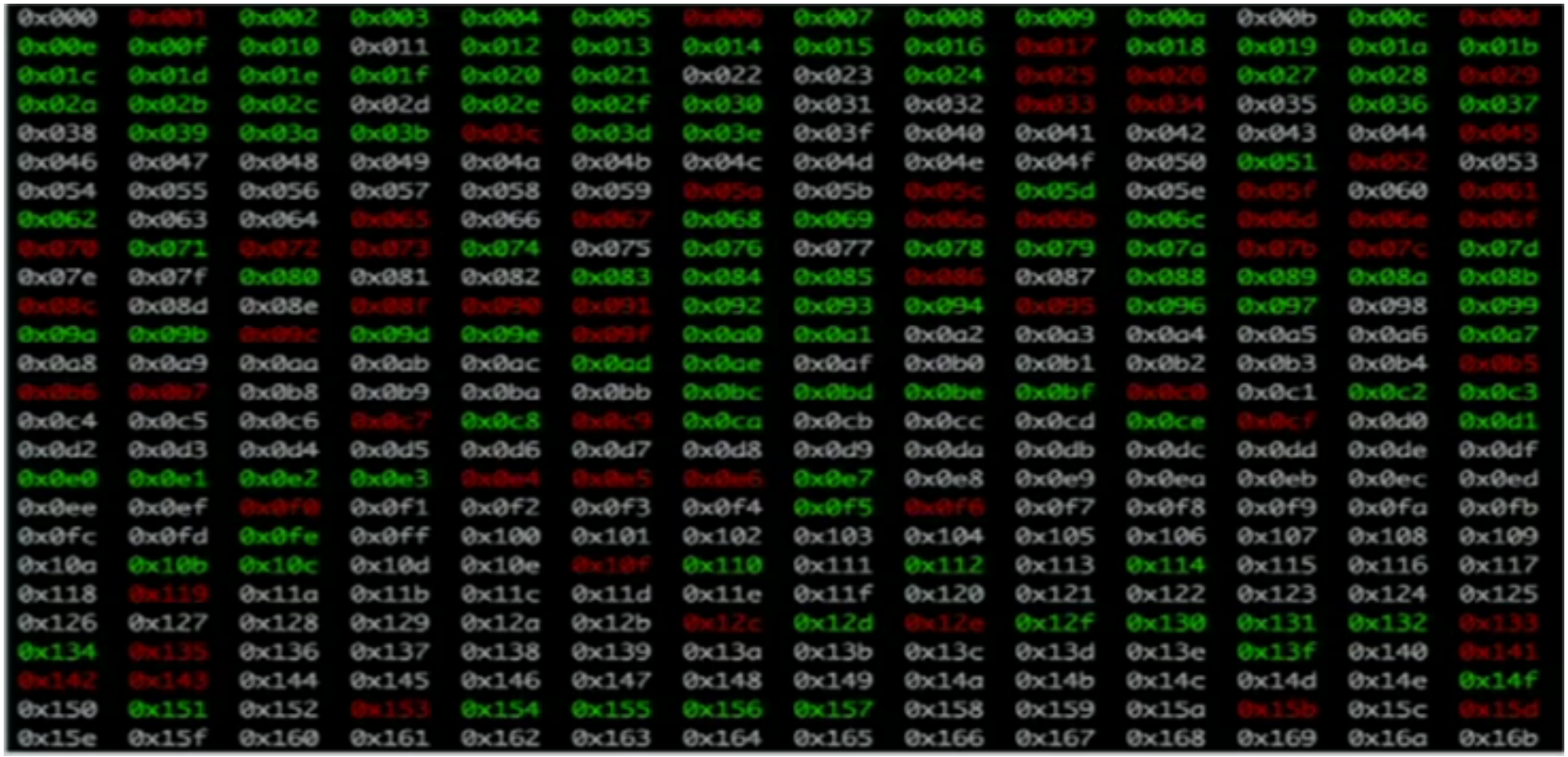

- total syscall entries: 364
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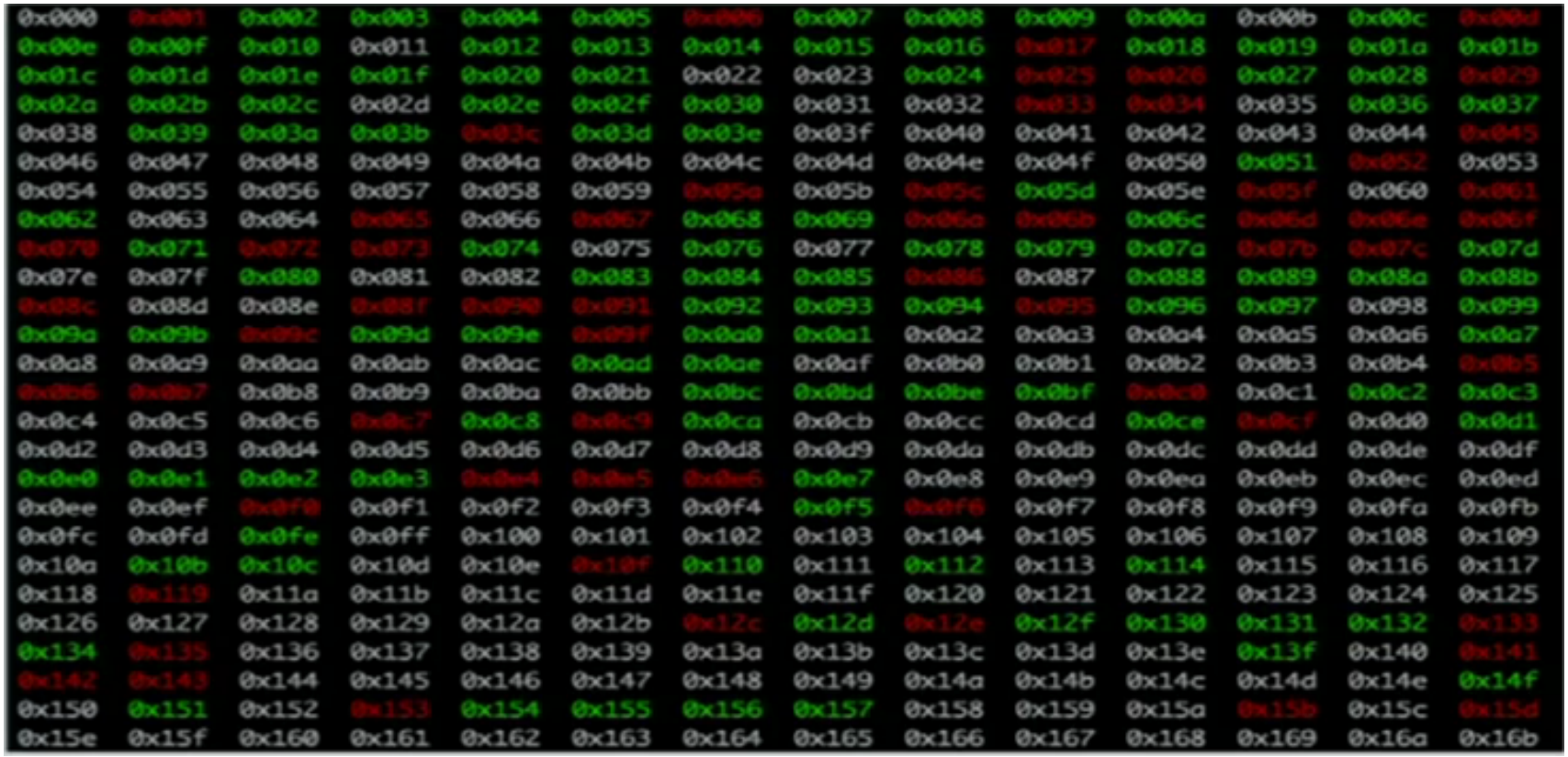

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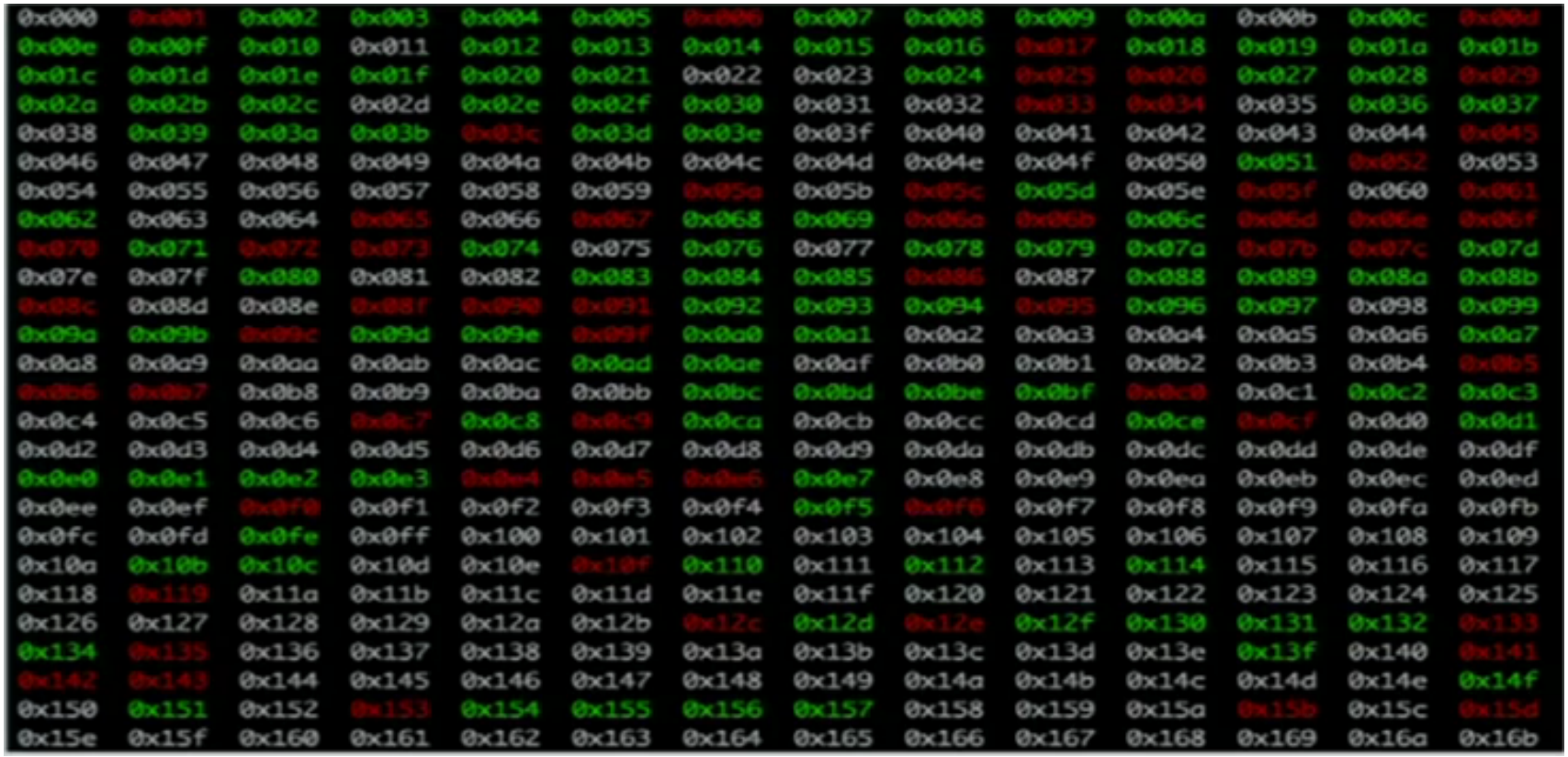

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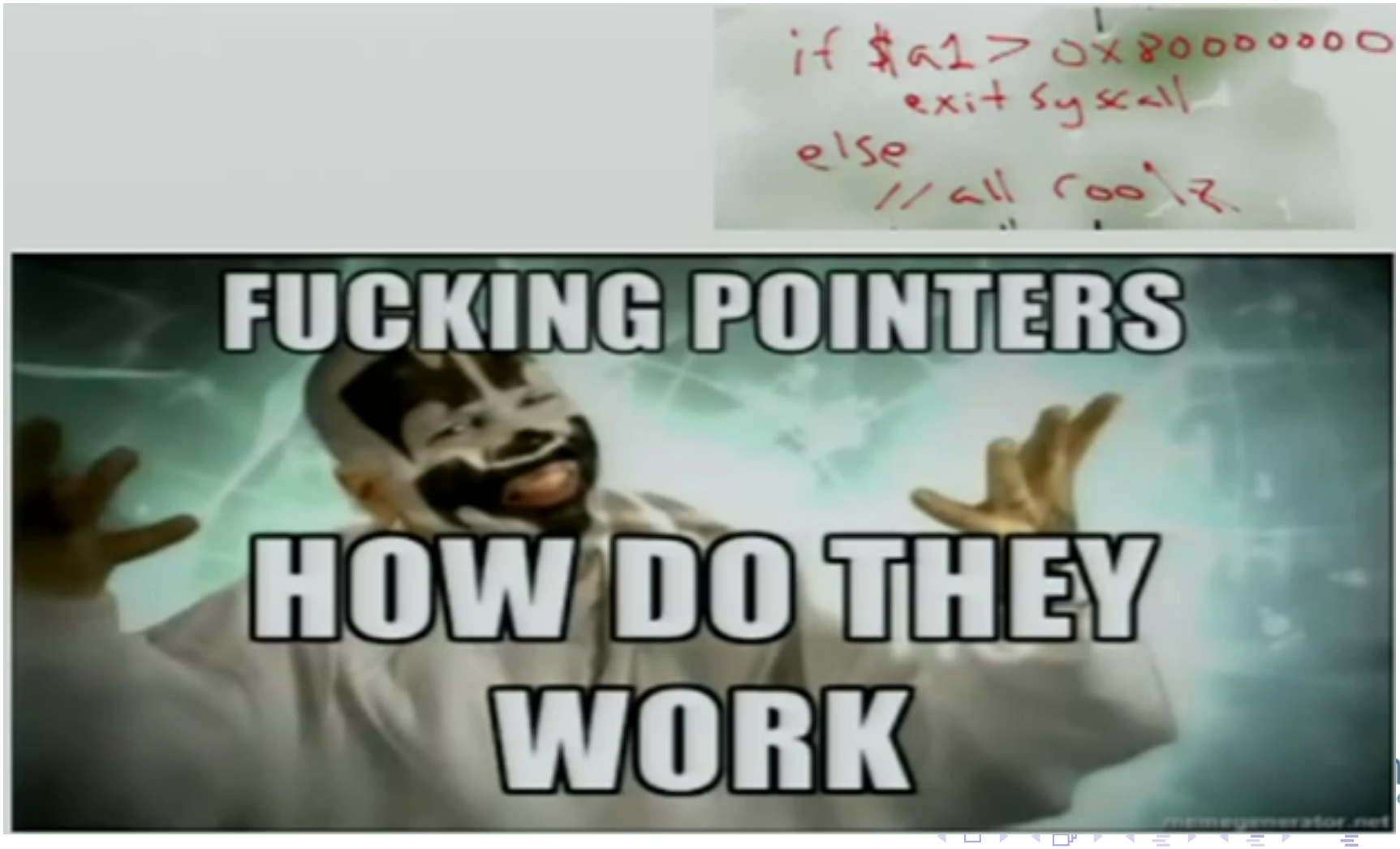

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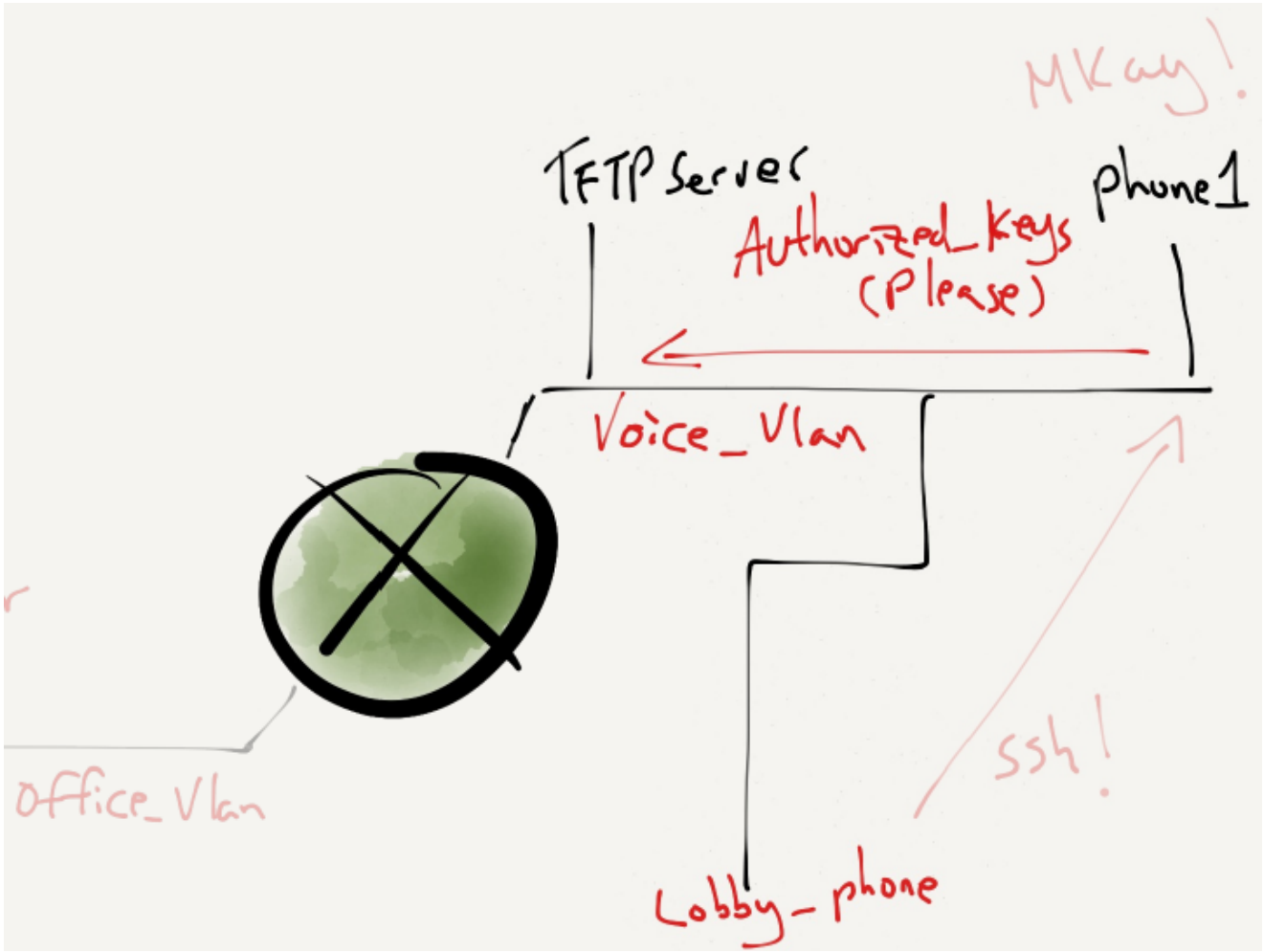
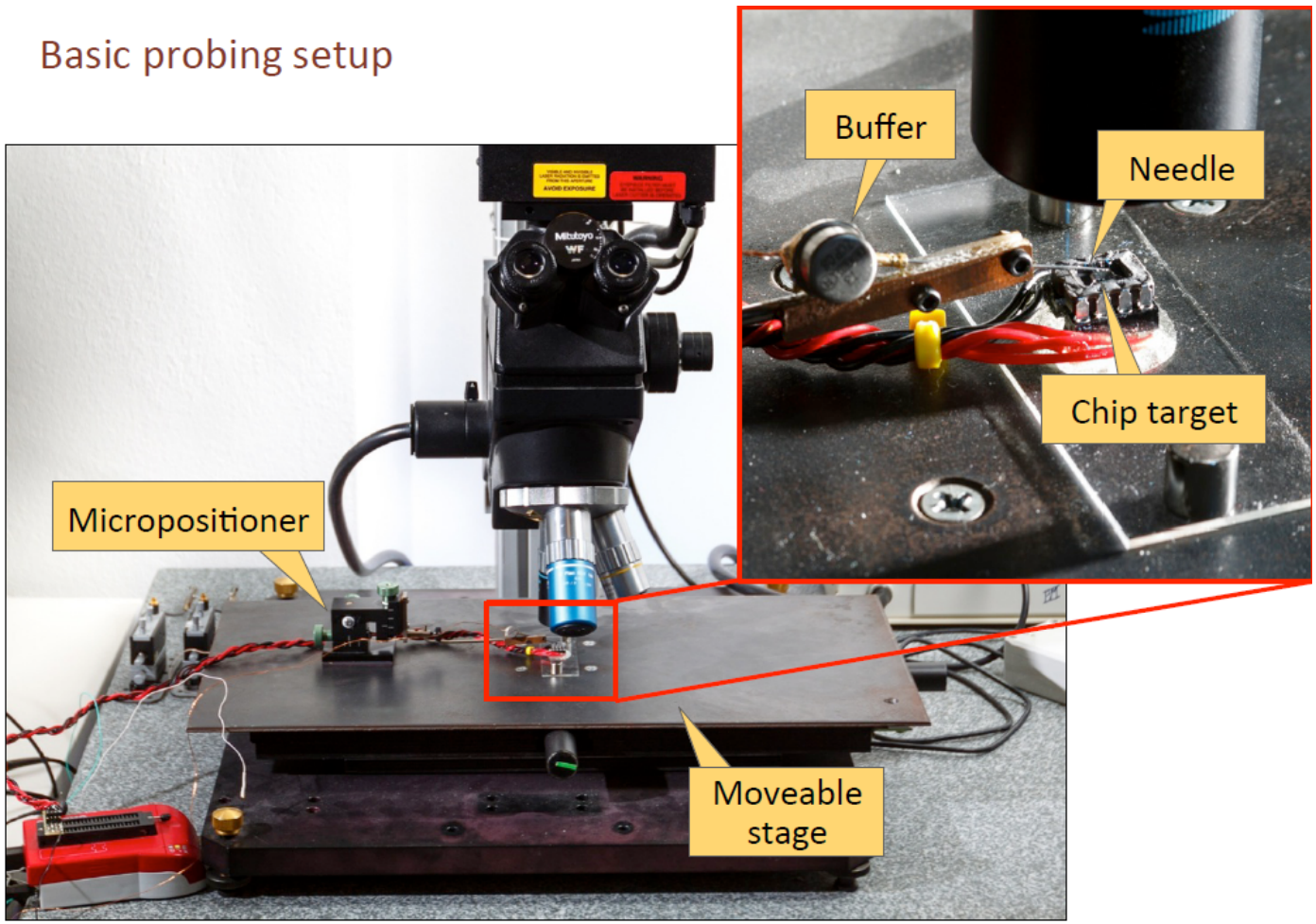


dexter, Karsten Nohl - Low-Cost Chip Microprobing

http://events.ccc.de/congress/2012/Fahrplan/events/5124.en.html



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- cca 2000 €old optical microscope, 300 €micropositioner, ...
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Travis Goodspeed - Writing a Thumbdrive from Scratch

http://events.ccc.de/congress/2012/Fahrplan/events/5327.en.html

- Read It Twice by Collin Mulliner (jailbreak Samsung tv), TOCTTOU (time of check to time of use) attack
- two versions of the same file read. big file read in between to flush cache
- the grugq, Defeating Forensic Analysis on Unix ,Phrack 59-6
- USB standard, SCSI standard

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Carlos Garcia Prado - How I met your pointer

http://events.ccc.de/congress/2012/Fahrplan/events/5219.en.html

- Everybody loves chocolate
- Fuzzing is like violence: if it doesn‘t solve your problems, you are not using enough of it.
- need to follow protocol
  `https://github.com/carlosgprado/Boyka`

Carlos Garcia Prado - How I met your pointer

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- Fuzzing is like violence: if it doesn‘t solve your problems, you are not using enough of it.
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- Firefox fork patched till now (Tor browser)
- Chrome in future, + isolation, - MS crypto API certificate verification ignores proxy setting
- HTTPS everywhere
- Tor browser bundle includes NoScript
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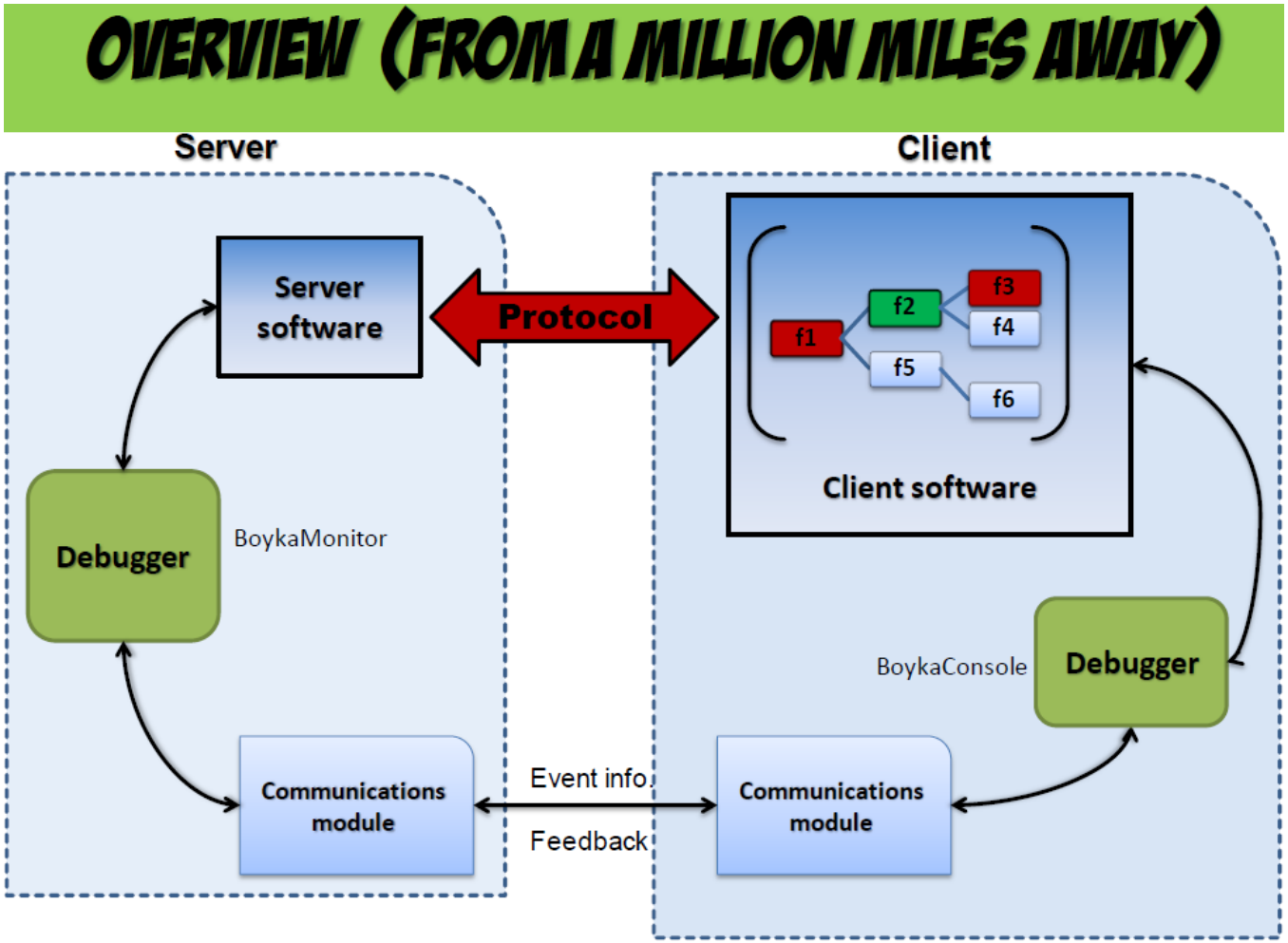

Nico Golde - Let Me Answer That for You

http://events.ccc.de/congress/2012/Fahrplan/events/5216.en.html

- Home Location Register/Visitor Location Register, paging channel, Location Area Code
- race condition not limited to one BTS
- OsmocomBB layer23 too slow, layer1 is ok
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Sylvain Munaut - Further hacks on the Calypso platform

http://events.ccc.de/congress/2012/Fahrplan/events/5226.en.html

- Motorola C123 can act as BTS with OsmocomBB

djb, Nadia Heninger, Tanja Lange - Facthacks

http://events.ccc.de/congress/2012/Fahrplan/events/5275.en.html

- RSA
- bad random-number generators (embeded deviced)
- generate both primes from a single search (shared modulos)
- sometimes users choose special primes to try to make RSA run faster
- sometimes users leak secret bits through side channels
- sometimes the attacker has a botnet, or a 65-megawatt data center in Utah or Tianjin
- `http://factorable.net`

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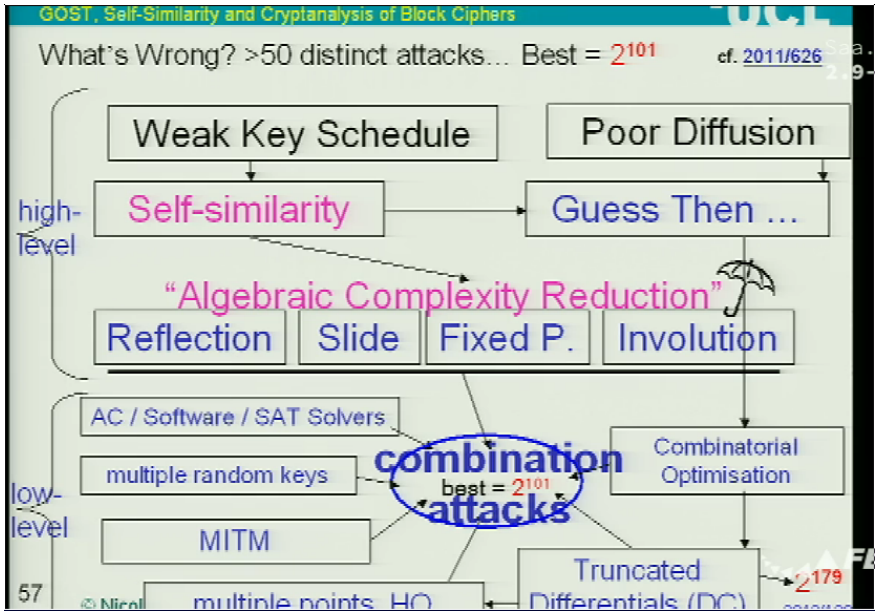
Dr Nicolas T. Courtois - Security Evaluation of Russian GOST Cipher

http://events.ccc.de/congress/2012/Fahrplan/events/5225.en.html



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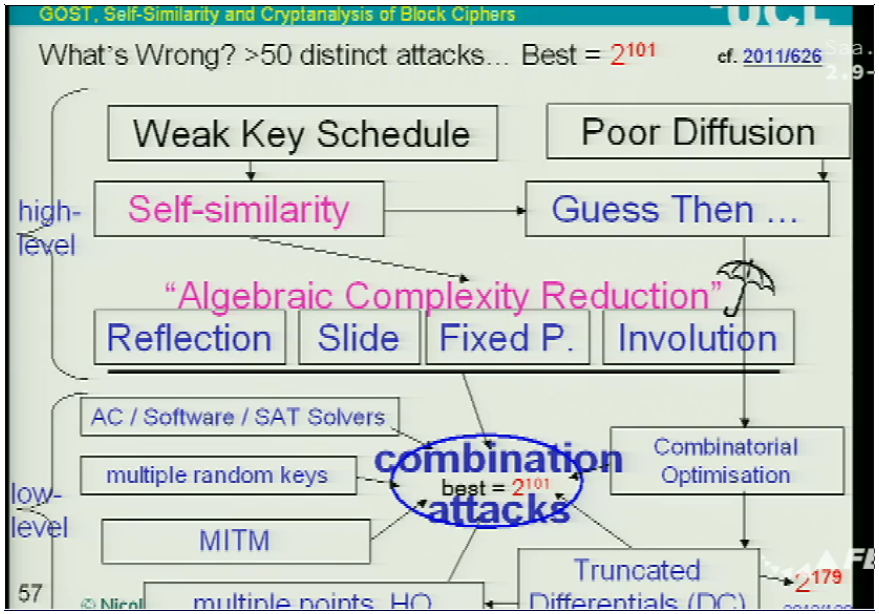

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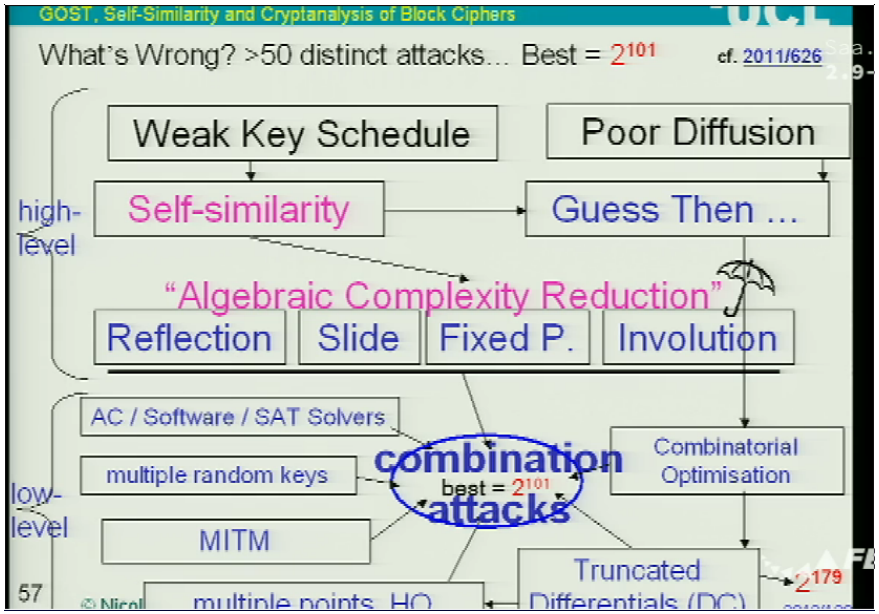

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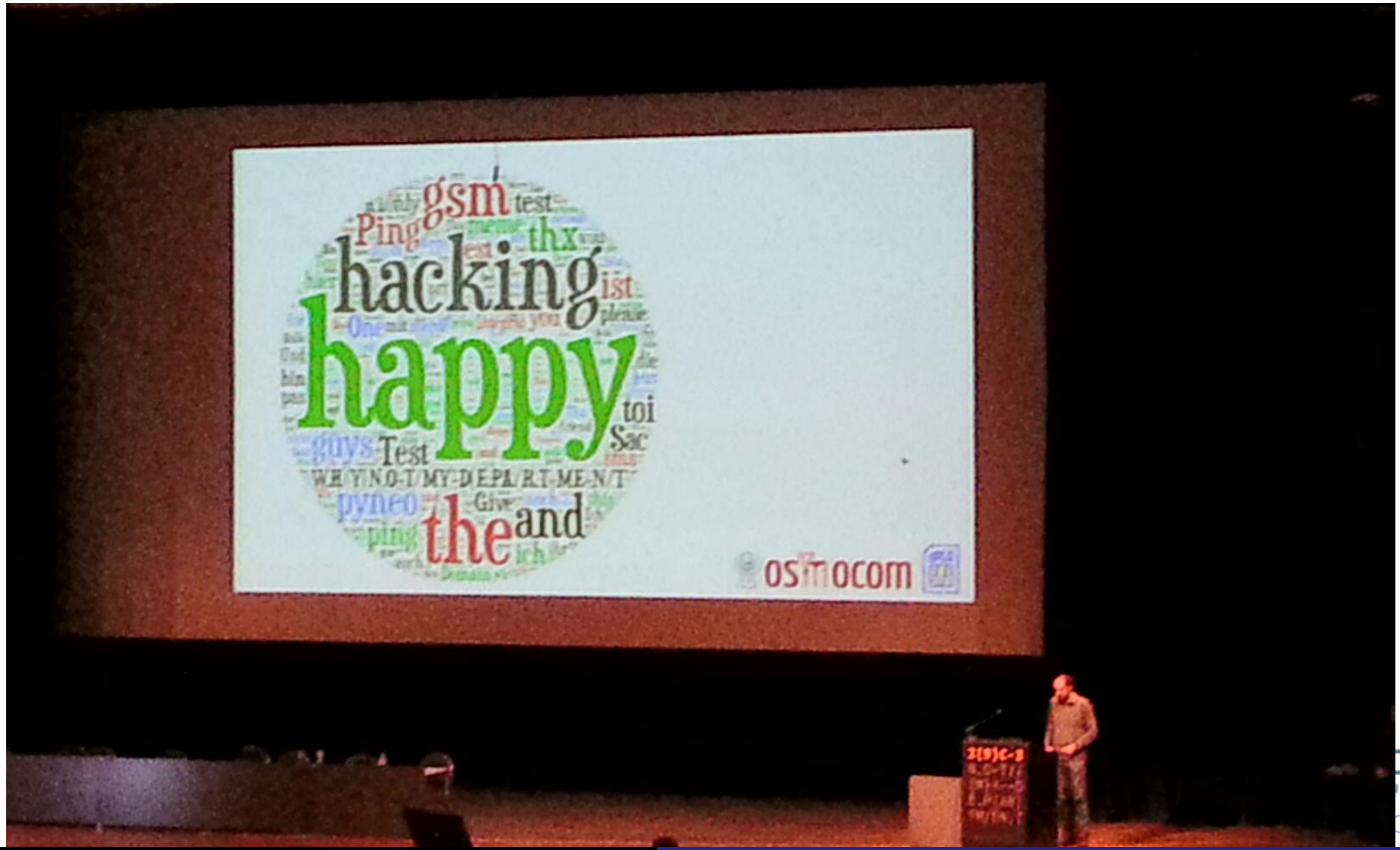
Andrei Soldatov - Russia's Surveillance State

http://events.ccc.de/congress/2012/Fahrplan/events/5402.en.html

how the government forces ALL local ISPs to buy and implement nation-wide surveillance mechanisms

Happy hacking && C U @ 30c3?



OHM 2013
Observe, hack, make

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