

About:Me



- nick: naxxatoe
- name: Sebastian Maier
- dob: 22.11.1988
- work: Freelancer



WHITE HAT



W H I T E H A T

What this is
NOT

What this is





Your sir are a Moron!



**YOU JUST
LOST THE
GAME**



EPIC FAIL

For some things, there's just no excuse



Overview

- Intro
- Networking Design
- Basics of Router hacking
- Advanced Attacks
- Identification of Targets
- Malware for routers



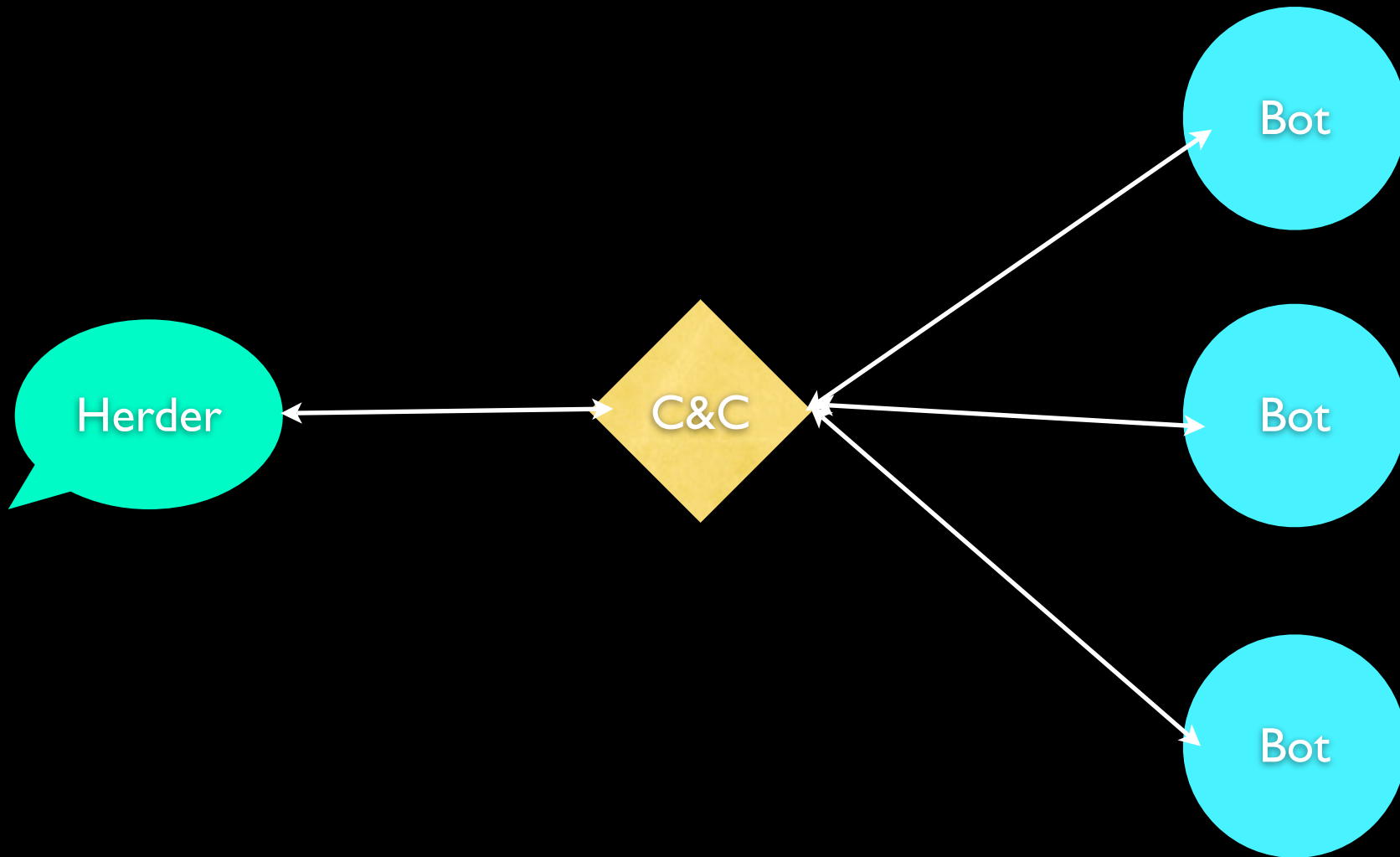
_an Introduction

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Classic Botnet CnC Concept



...PROCEED.





Internet



DSL/Cable
Modem



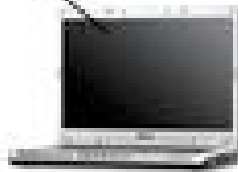
Router



Computer A



Computer B



Notebook C



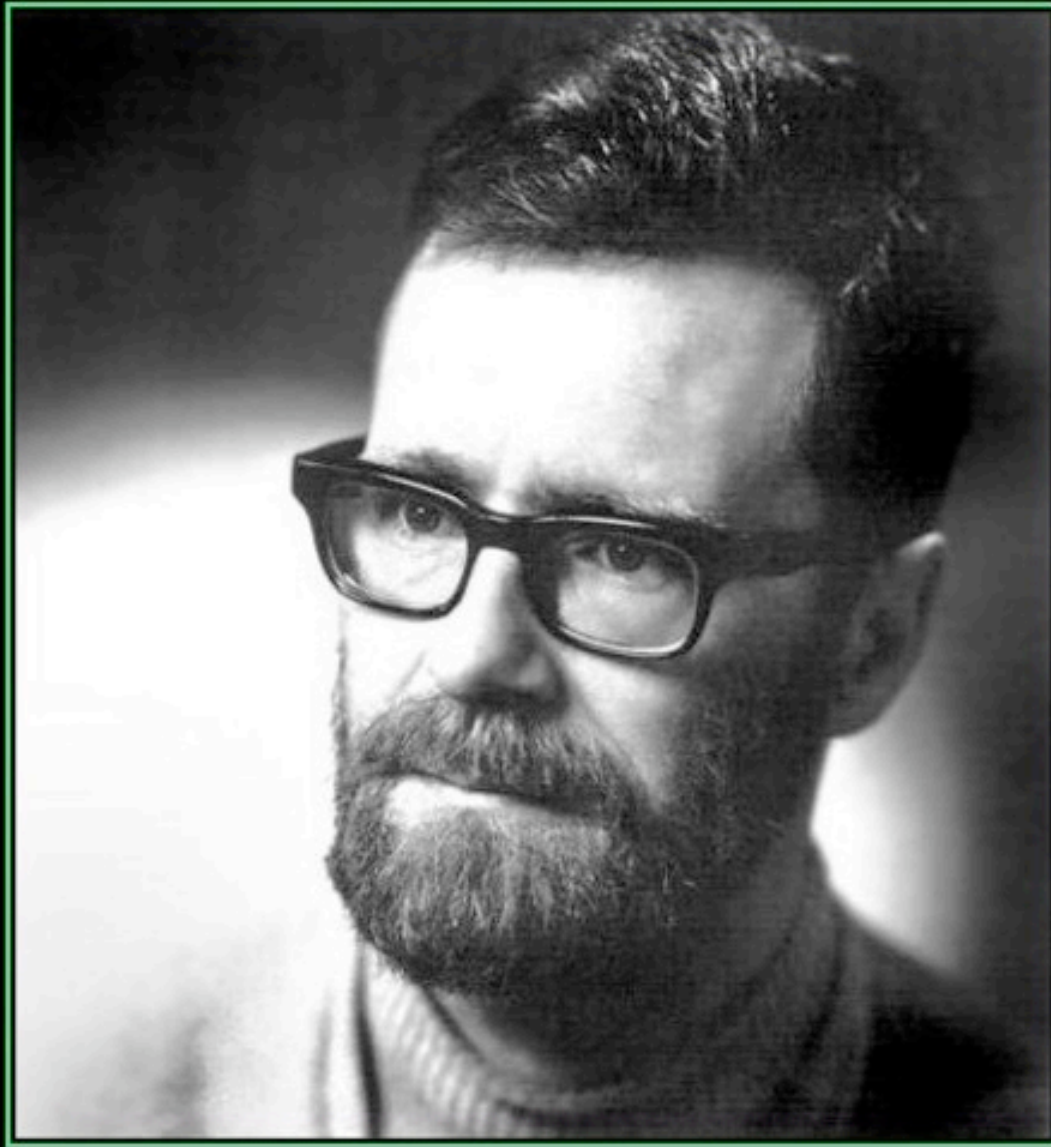
What to Attack

Taking a look at

- Web Interfaces
- Management Consoles (SSHd/Telnetd/...)
- Other Services (upnp,..)

Attacks on Web-interfaces

- Input Validations (xss, ..)
- Auth Bypass or Password Info Disclosure
- Brute-force



QUICK AND DIRTY

I WOULD NOT LIKE IT.

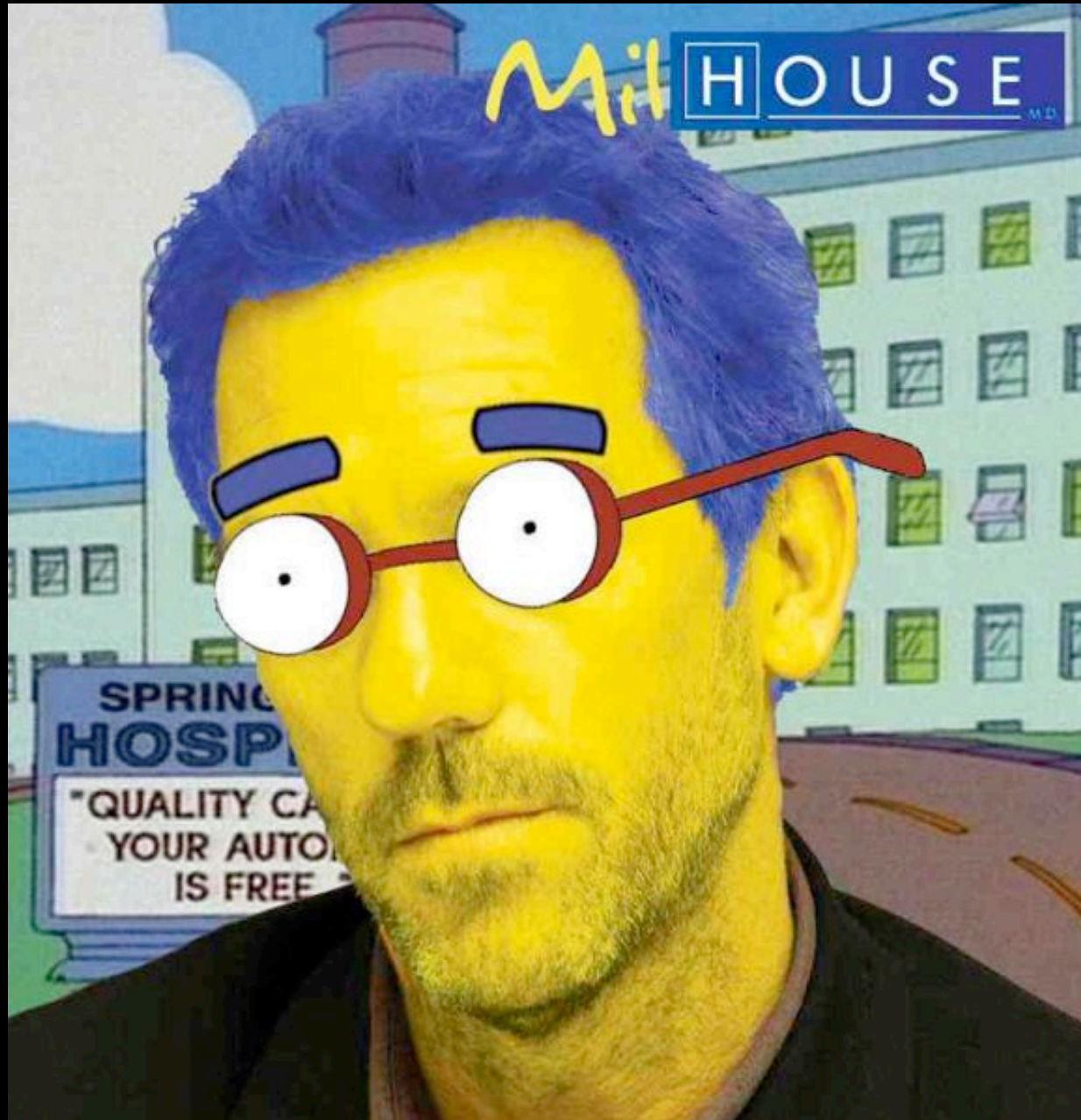


IT'S TRUE!

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SPRING
HOSPITAL
"QUALITY CARE
YOUR AUTO
IS FREE"

MILHOUSE

Loco != good quality

- low-cost == low dev time
- low dev time == bad code + bad security
- bad security == FAIL





—



Identification of Targets



O RLY?

Malware for Soho Routers

From Science to Religion

- Types of Malware
- Use-cases for Malware on Routers
- Future Trends

Types of Malware

- Semi Automatic Malware
- Self Spreading Malware



use-cases

- DDoS attacks
- Sniffers & M.i.t.m. Attacks
- Phishing & Traffic Redirection
- Pay per Click Fraud
- Host proxy servers,...
- (?Grid Computing?)

Reality?

- Abusing Routers == Easy
- Lots of Exploits Around
- Lots of stuff to be discovered
- Building bad stuff takes a bit of time & effort
+ a idea what to do with all the
compromised machines

Has this been in the wild yet?



What have you seen?

- Router exploits: yes
- Automatic exploit tools: yes (see: gesumbi)
- Router hacks for DDoS : yes (seen kaiten on it)
- Self spreading Bots: yes (see: hydra for dlink 's)
- Advanced Malware: not so far

Future Trends





FAILURE

WHEN YOUR BEST JUST ISN'T GOOD ENOUGH.

Detection of Compromised Systems



Aftermath



I've got a bug to report



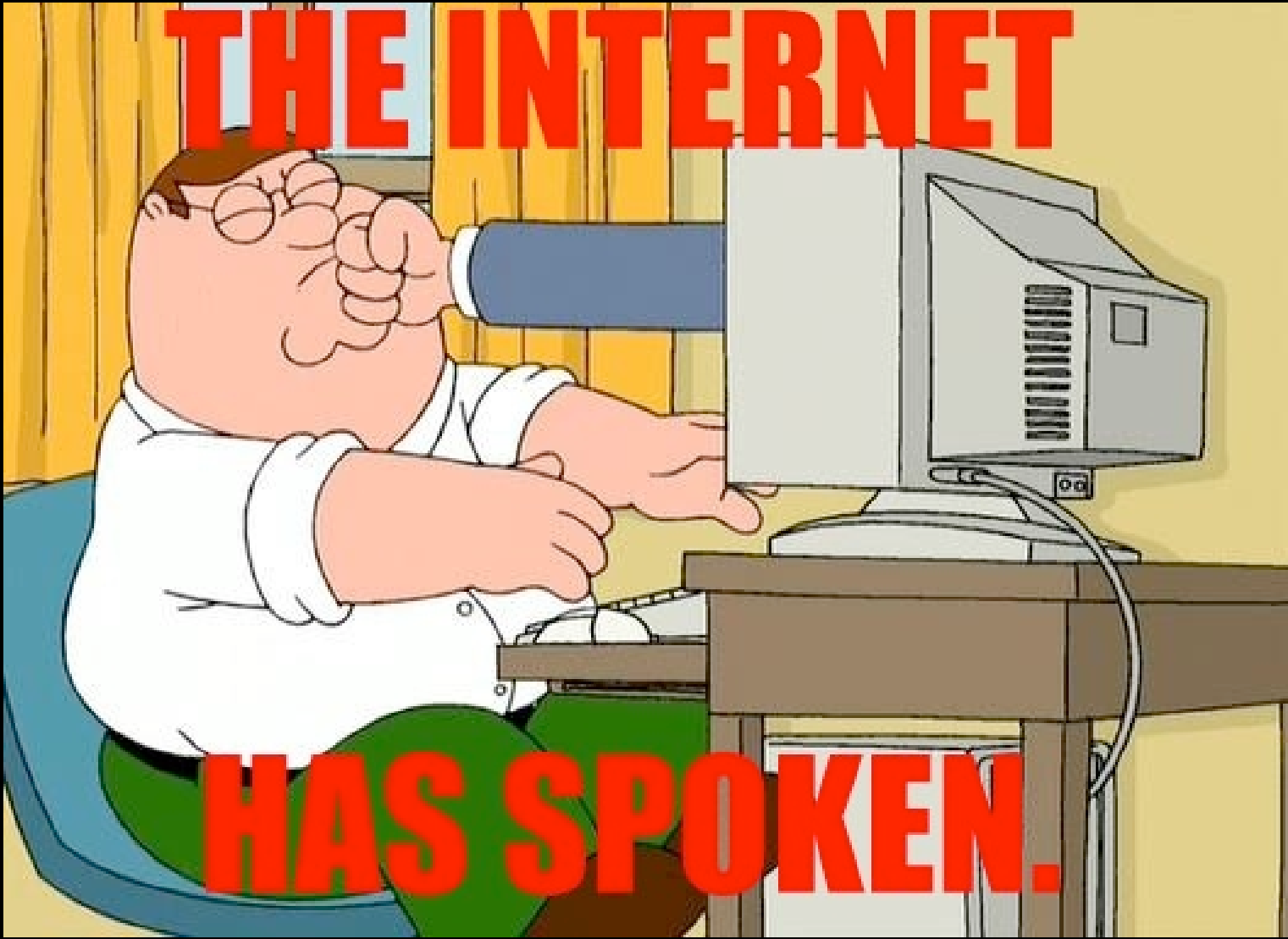


FOUR WORDS

DEVELOPERS DEVELOPERS DEVELOPERS DEVELOPERS



THE INTERNET



HAS SPOKEN.



Resources:

- NNC Sec.Res.: <http://nicenamecrew.com/>
- Slides: <http://data.nicenamecrew.com/media/>
- Paper: <http://data.nicenamecrew.com/papers/>

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DISCUSSION

