

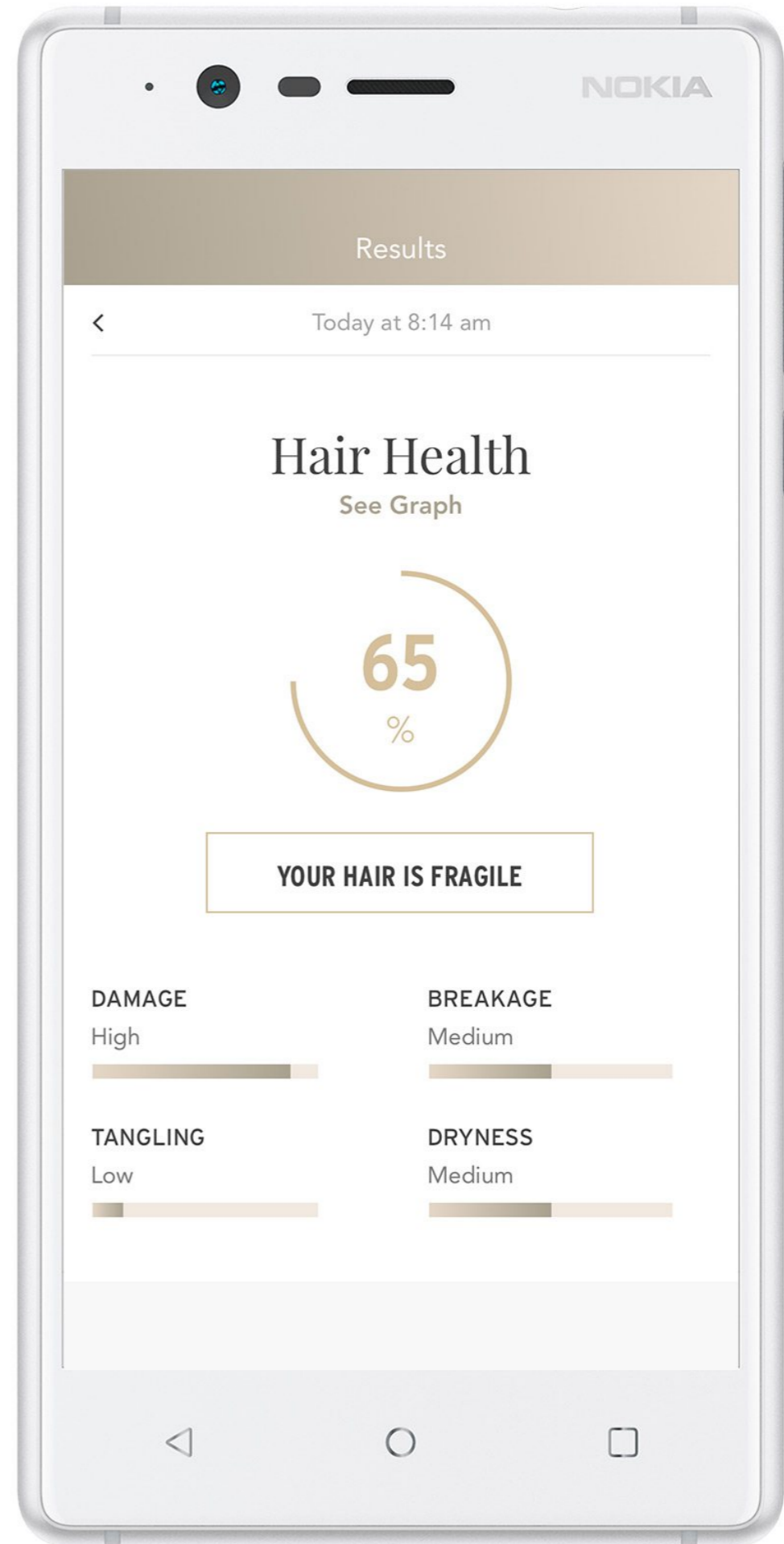
Open challenges in deploying IoT Security

Elmer Lastdrager

12 February 2020





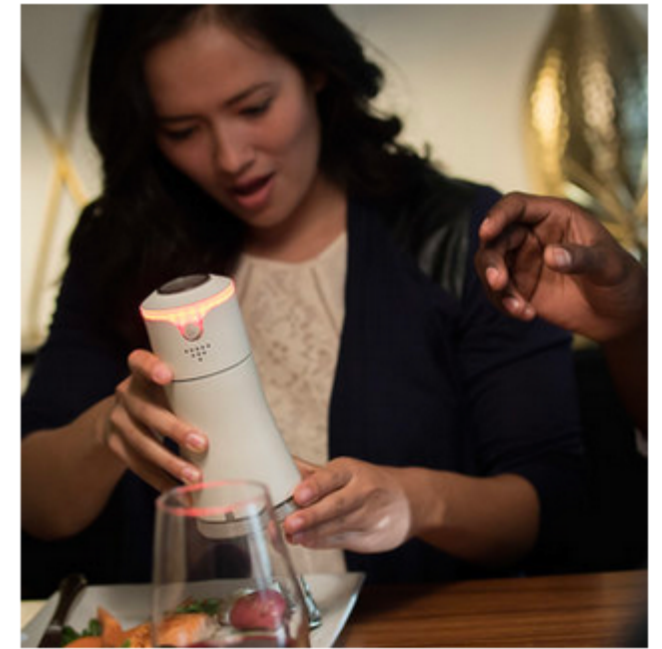






SMALT with voice

Connect SMALT with Amazon Echo and simply say "Alexa, dispense half a teaspoon of salt".



Bring the flavor

SMALT dispenses salt with a shake/pinch of your smartphone screen or simply turning the dial manually.

YOU GET CONNECTED!

AND YOU GET CONNECTED!

EVERYTHING GETS CONNECTED!

The "S" in IoT
stands for
SECURITY





Home > Security > Cybercrime & Hacking



SECURITY IS SEXY

By [Darlene Storm](#), Computerworld | FEB 2, 2015 12:09 PM PT

About

Most security news is about insecurity, hacking and cyber threats, bordering on scary. But when security is done right, it's a beautiful thing...sexy even. Security IS sexy.

NEWS ANALYSIS

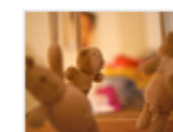
Hacker hijacks wireless Foscam baby monitor, talks and freaks out nanny

This is the third time news has circulated about some jerk hijacking a wireless Foscam camera/baby monitor and made his virtual intrusion known by talking. Please change the default password!



MORE LIKE THIS

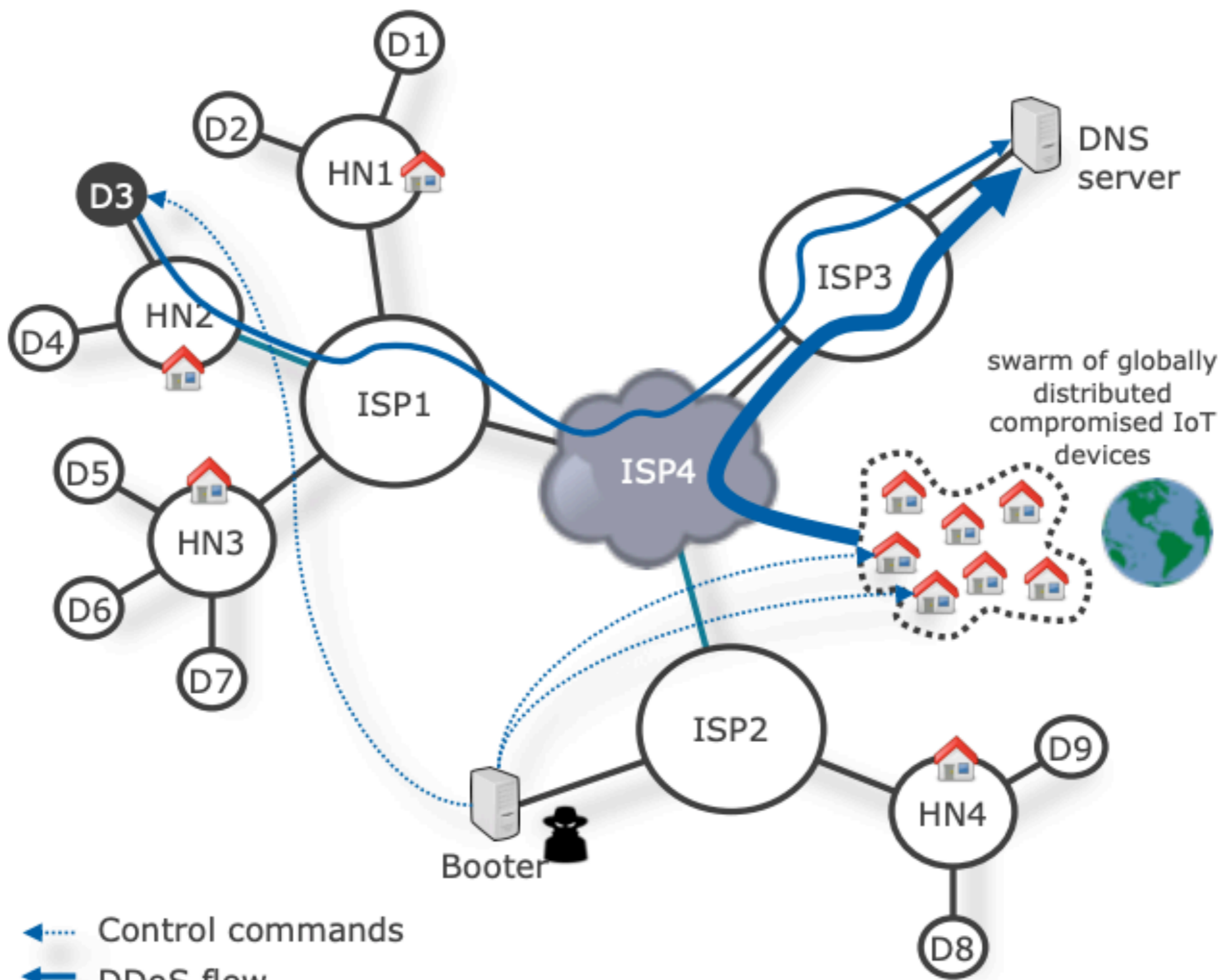
Hacker strikes again: Creep hijacks baby monitor to scream at infant and...



2 more wireless baby monitors hacked: Hackers remotely spied on babies and...



Eerie music coming from wireless baby cam: is it a...



←····· Control commands

← DDoS flow

HN = Home Network

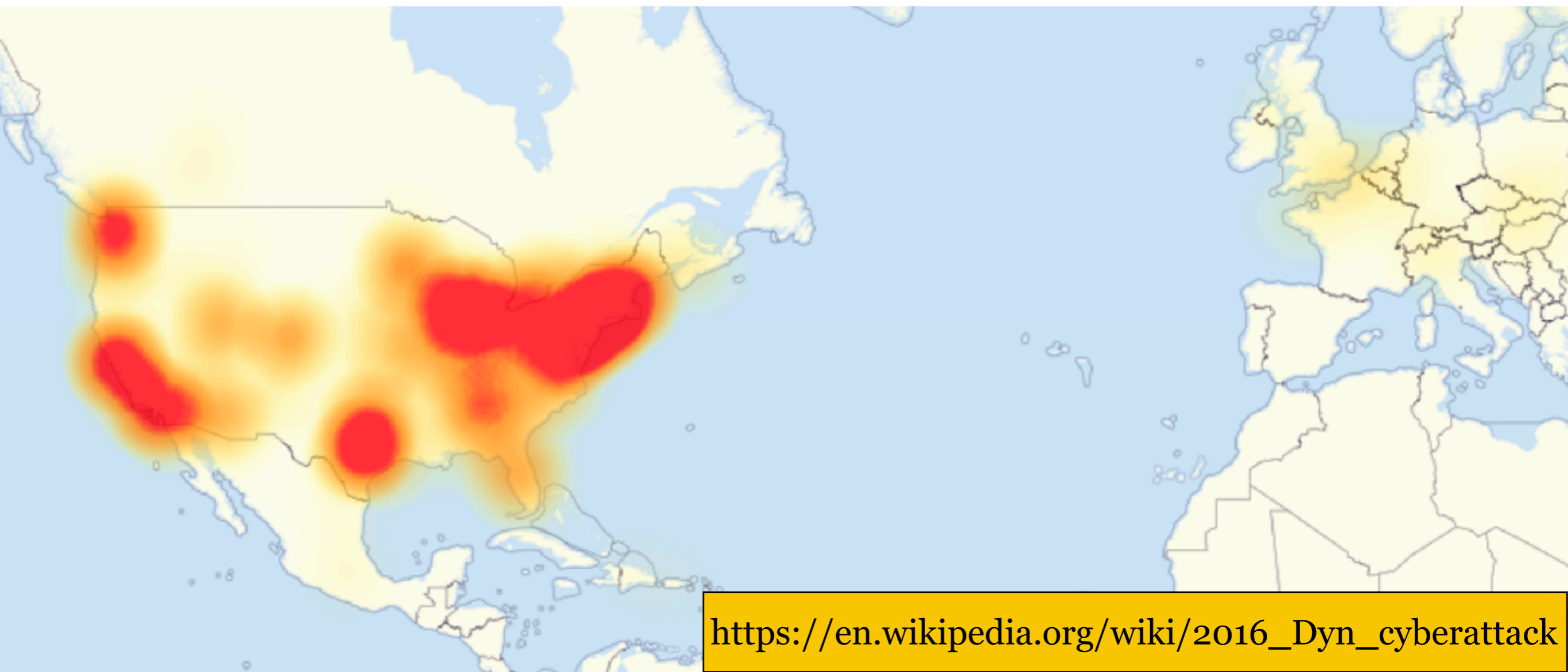
D = IoT device

SLIDESHOW

The internet of insecure things: Thousands of internet-connected devices are a security disaster in the making



By **Josh Fruhlinger**, CSO | Oct 12, 2016 4:00 AM PT



NETFLIX



WIRED

amazon.com

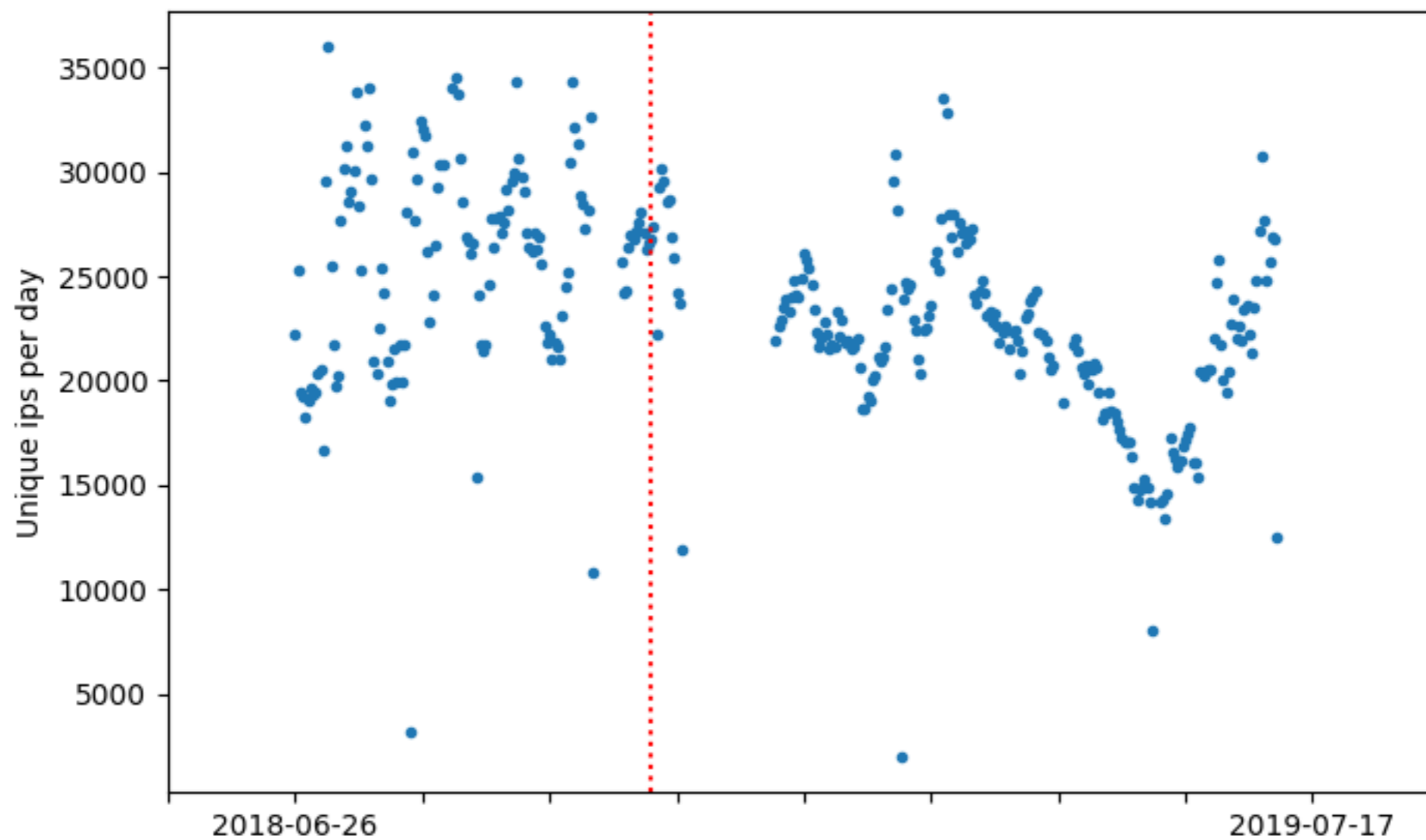
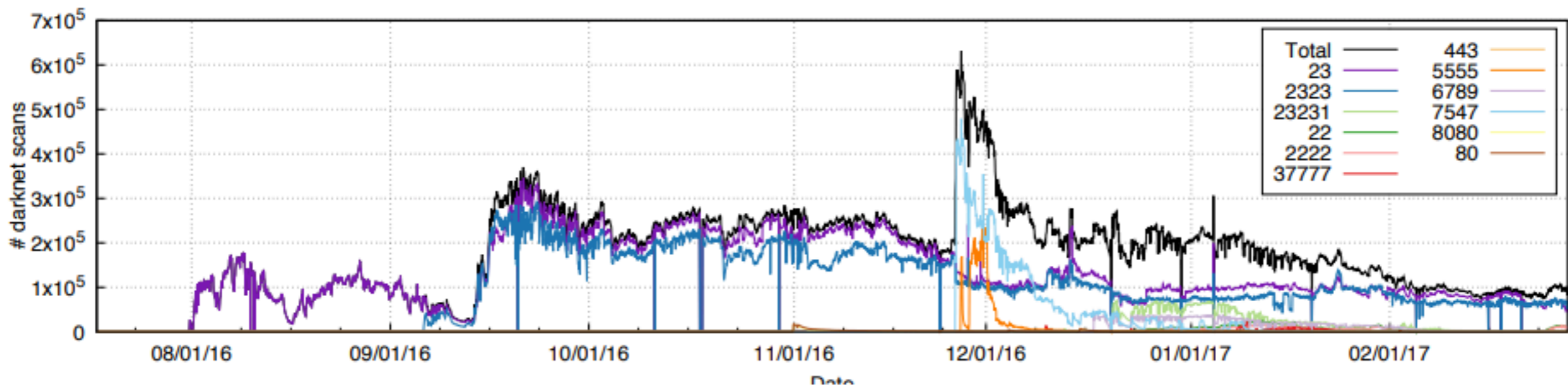


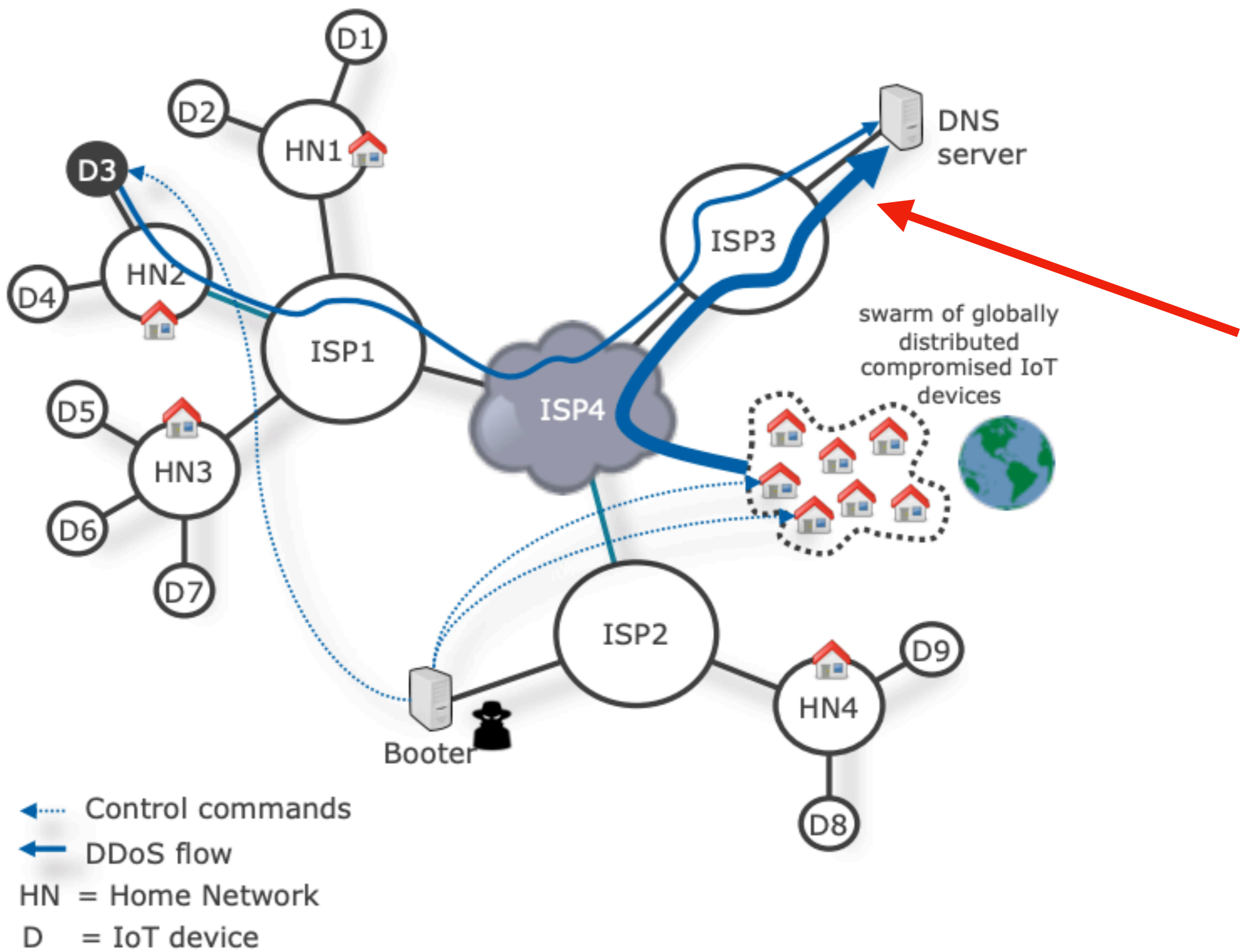
BBC

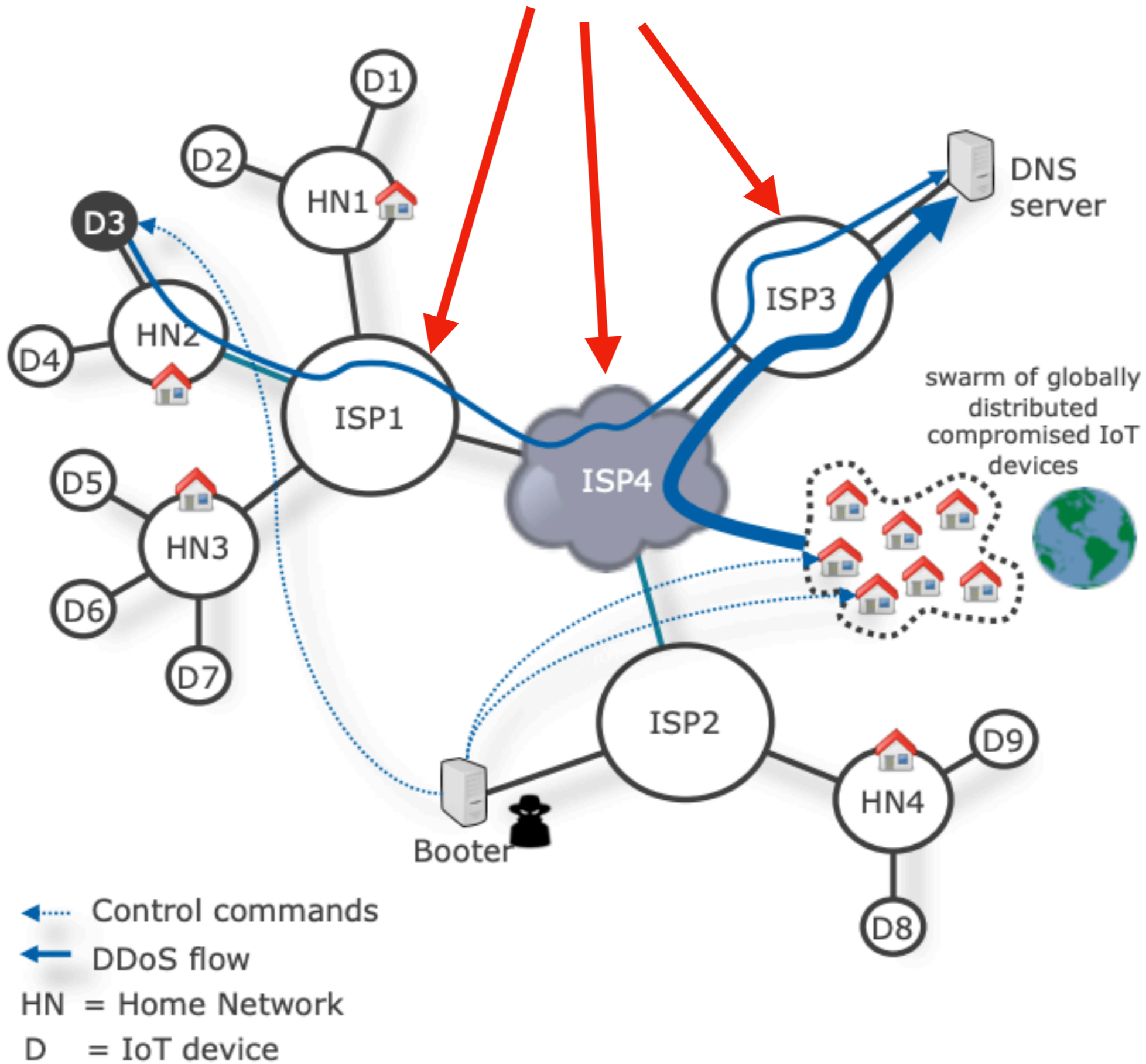
CNN

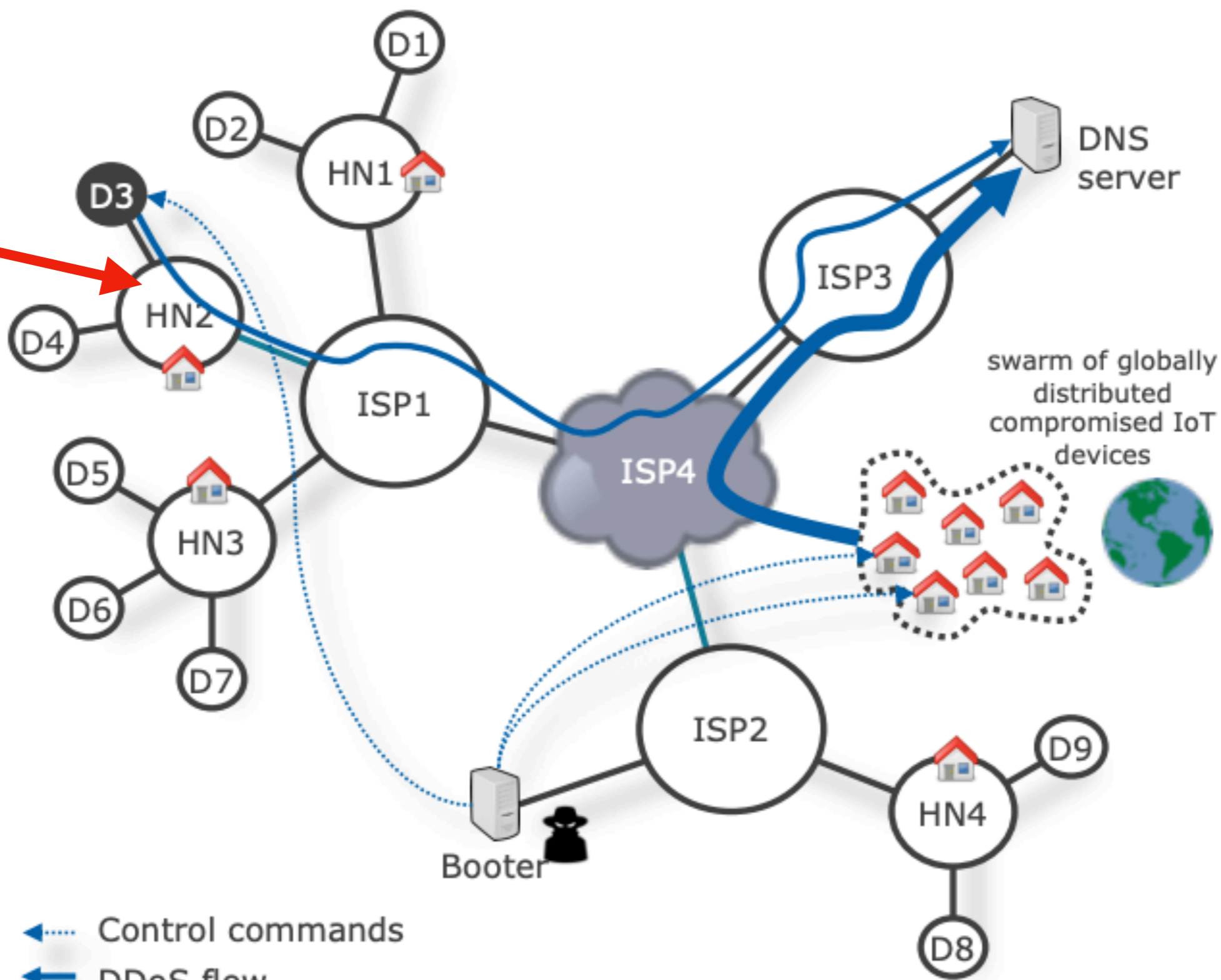


HBO







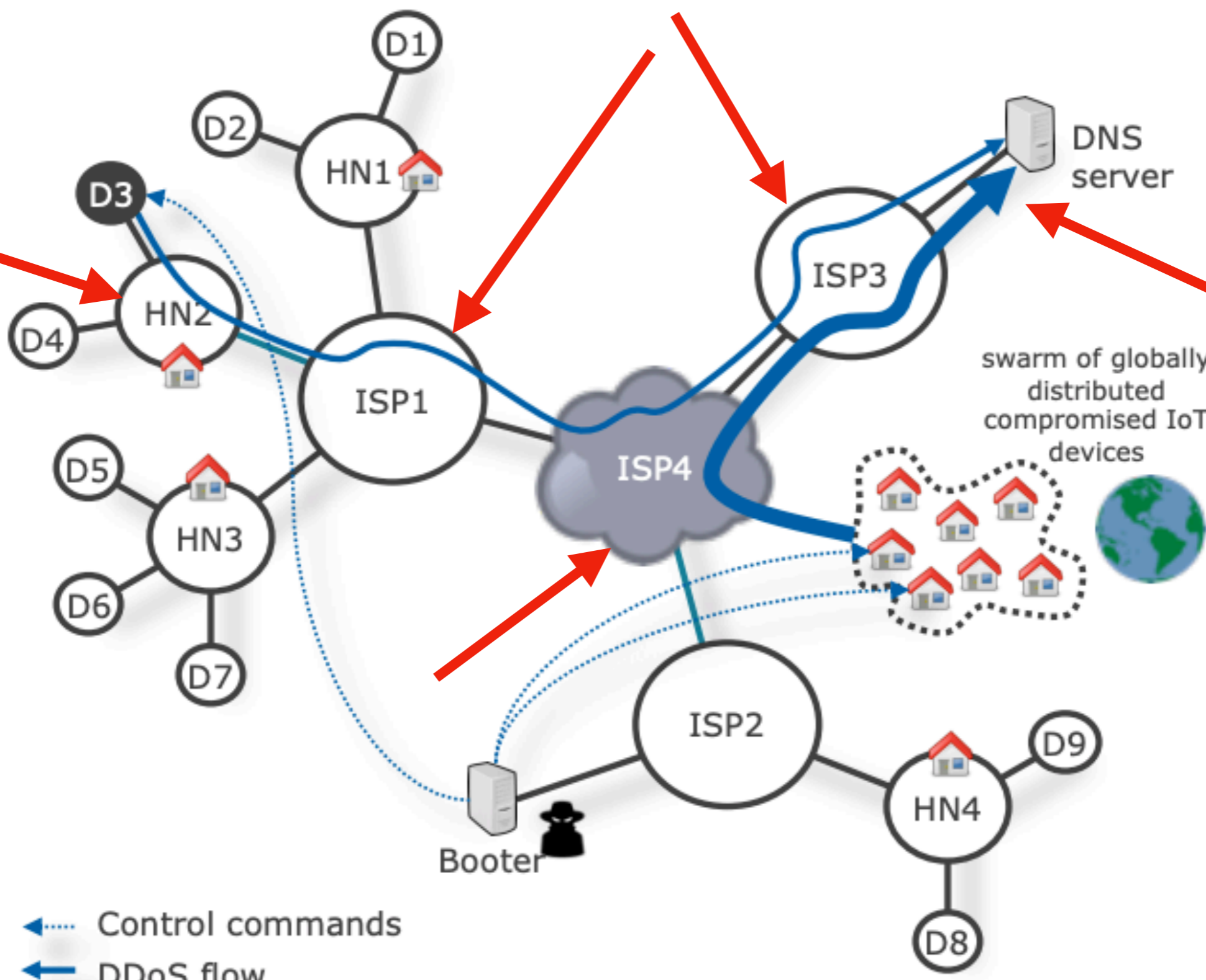


←····· Control commands

← DDoS flow

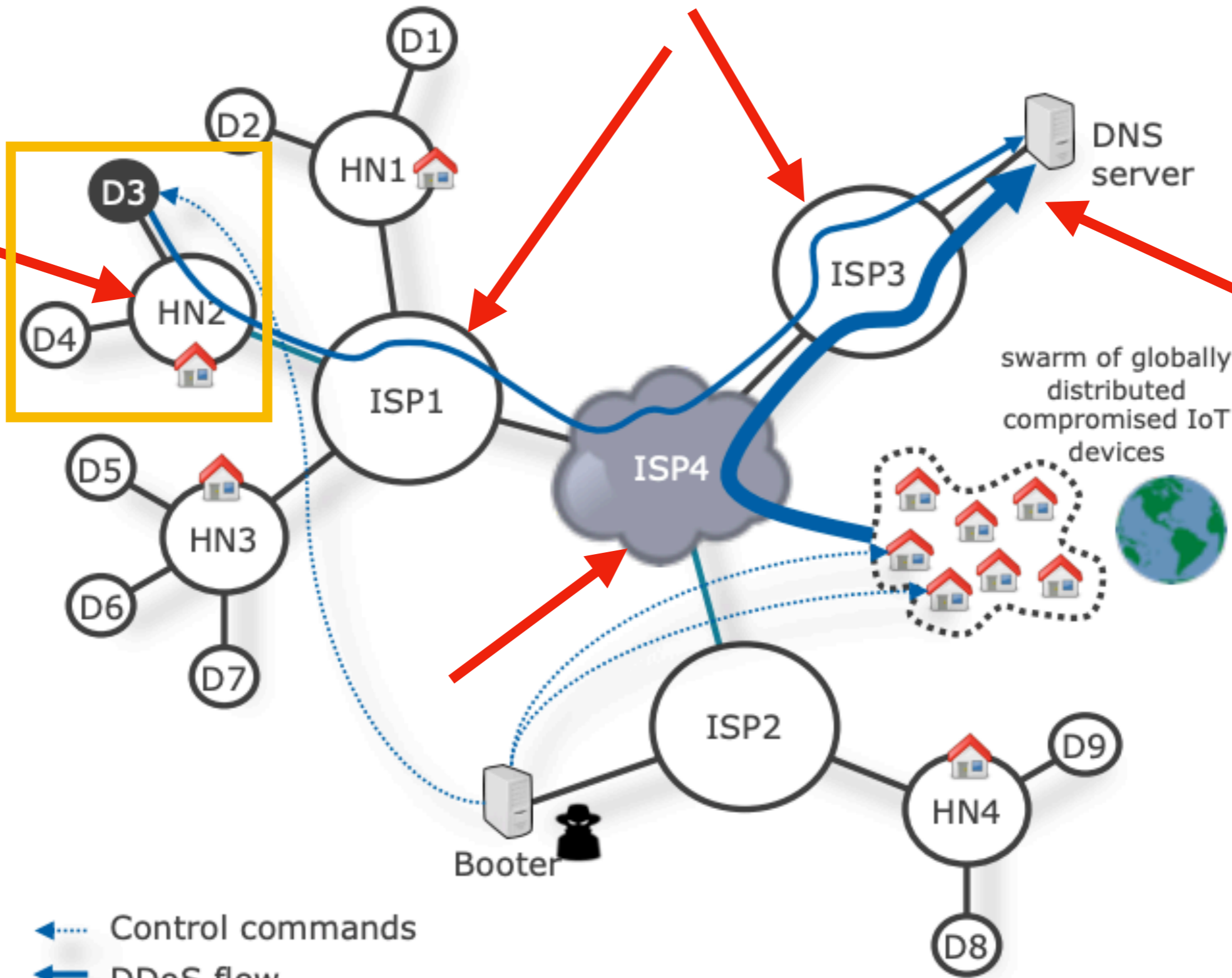
HN = Home Network

D = IoT device



- ←····· Control commands
- ←····· DDoS flow
- HN = Home Network
- D = IoT device

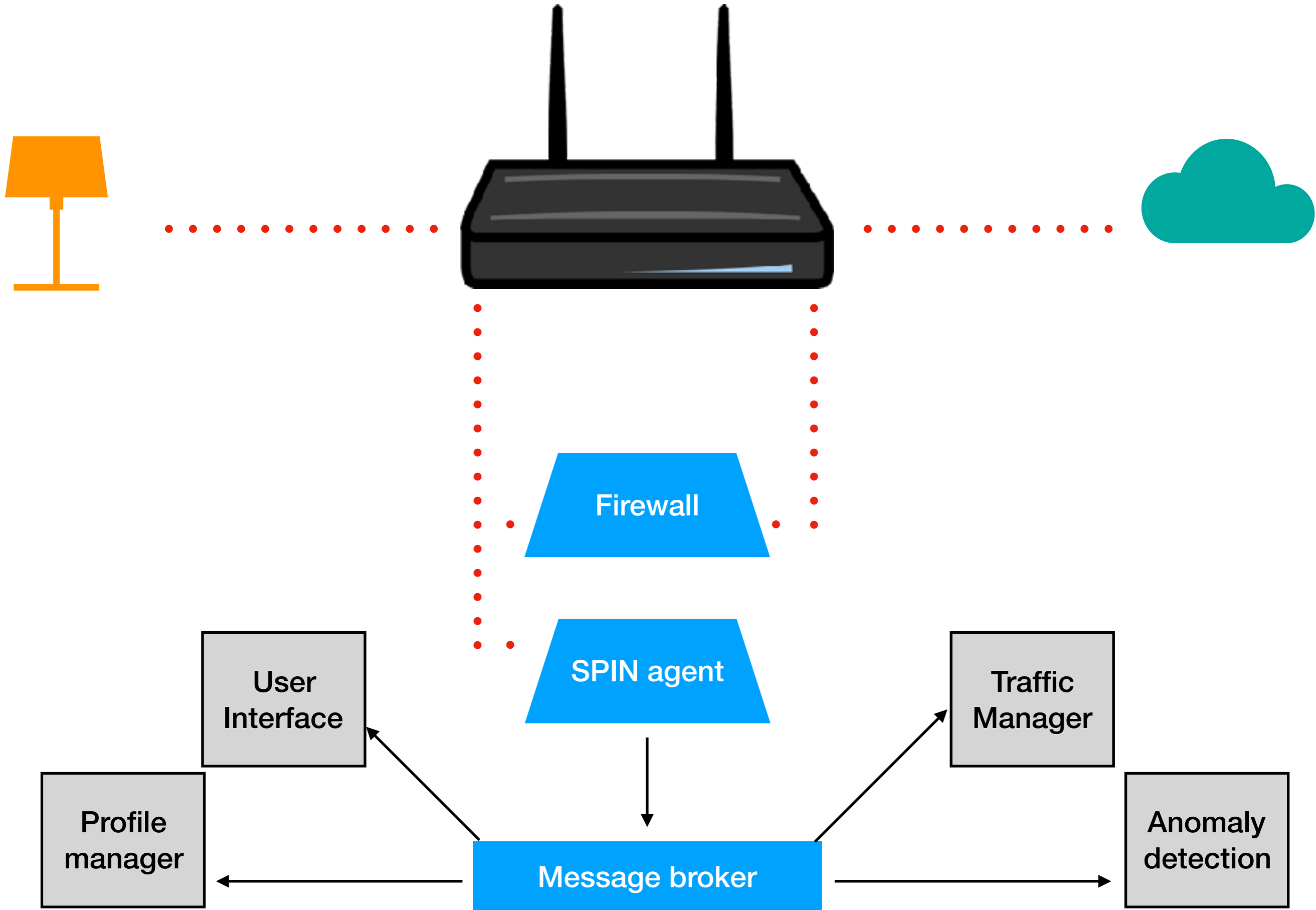




←····· Control commands
 ←····· DDoS flow
 HN = Home Network
 D = IoT device

Security and Privacy for In-home Networks (SPIN)





[[Docs](#)] [[txt](#)|[pdf](#)] [[draft-ietf-opsa...](#)] [[Tracker](#)] [[Diff1](#)] [[Diff2](#)] [[Errata](#)]

PROPOSED STANDARD

Errata Exist

Internet Engineering Task Force (IETF)

E. Lear

Request for Comments: 8520

Cisco Systems

Category: Standards Track

R. Droms

ISSN: 2070-1721

Google

D. Romascanu

March 2019

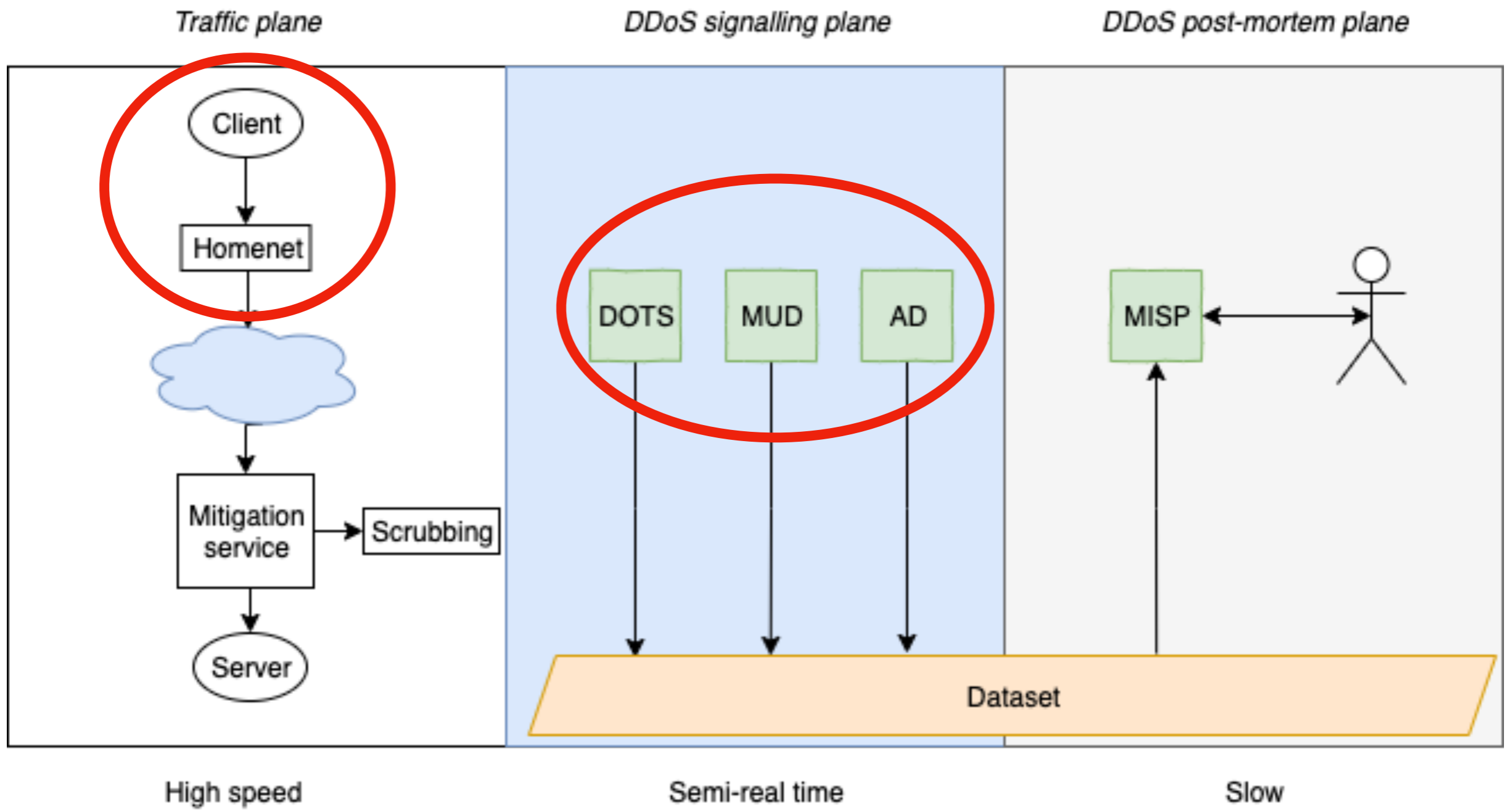
Manufacturer Usage Description Specification

Abstract

This memo specifies a component-based architecture for Manufacturer Usage Descriptions (MUDs). The goal of MUD is to provide a means for end devices to signal to the network what sort of access and network functionality they require to properly function. The initial focus is on access control. Later work can delve into other aspects.

This memo specifies two YANG modules, IPv4 and IPv6 DHCP options, a Link Layer Discovery Protocol (LLDP) TLV, a URL, an X.509 certificate extension, and a means to sign and verify the descriptions.

Status of This Memo



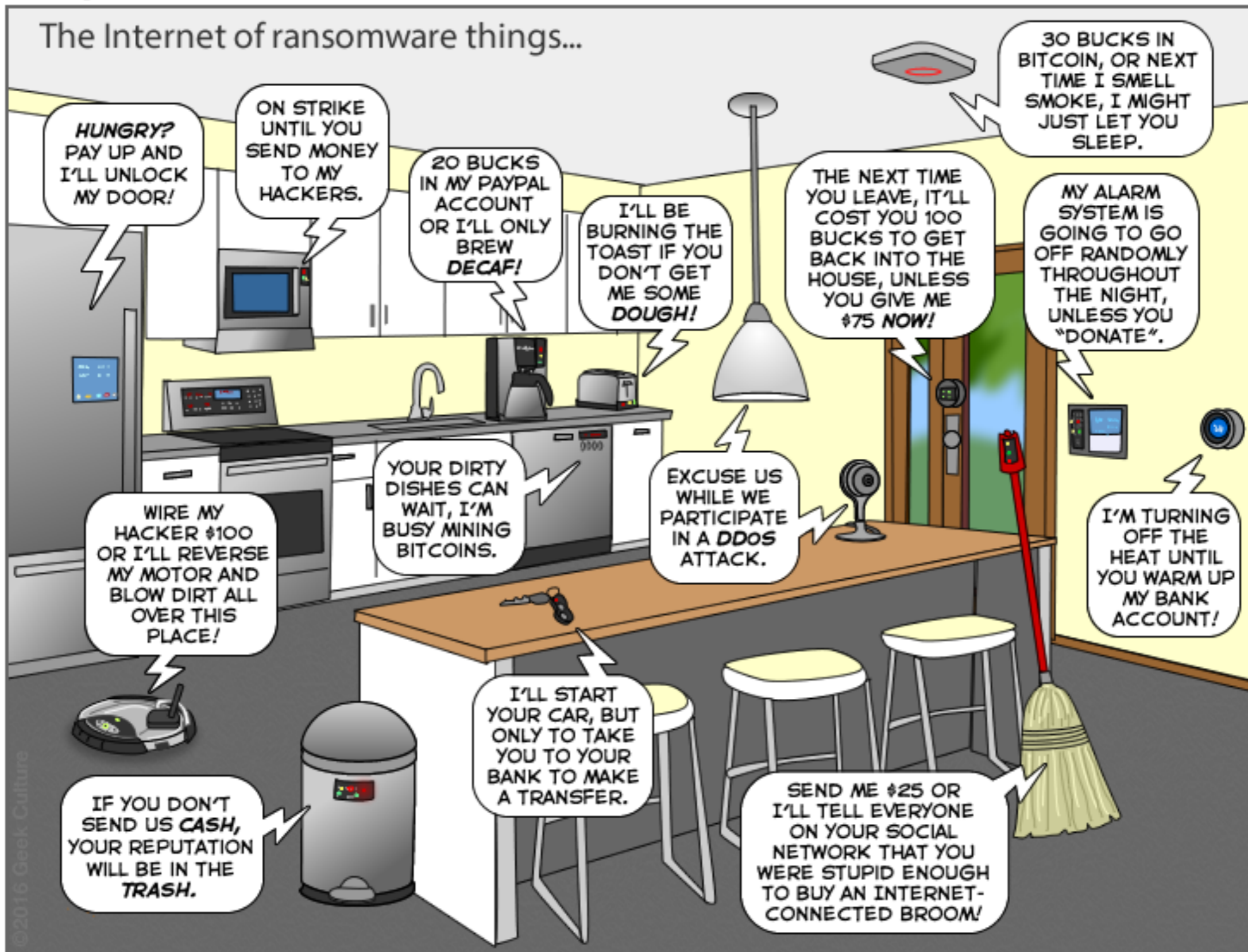


Max input: 230 V
- 60/50 Hz



WHICH ONE IS THE DEPLOY BUTTON?





elmer.lastdrager@sidn.nl
<https://spin.sidnlabs.nl>