



Red IRIS

TOPERA v0.2

IPv6 and Slow HTTP Attacks

Daniel Garcia a.k.a Cr0hn (twitter.com/ggdaniel)

Rafa Sánchez - (twitter.com/r_a_ff_a_e_ll_o)





Red
IRIS

Qué vamos a contar

IDS --> SNORT --> Topera v0.1 -->

DEMO --> Topera v0.2 --> DEMO



Red
IRIS

IDS/IPS

Sistema de Detección/Prevención de Intrusos





Red IRIS

SNORT

No se lleva muy bien con IPv6

SOURCEfire®



SNORT®



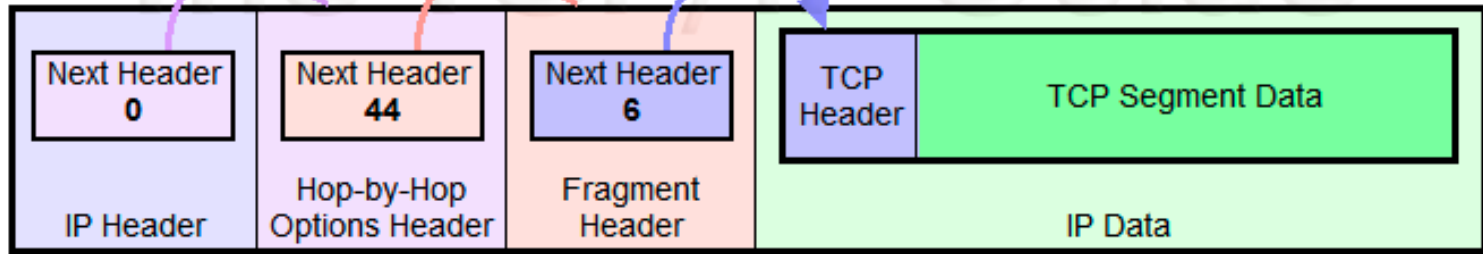
IPv6



Red IRIS

SNORT

Extension Headers





Red
IRIS

IETF

Rfc2460 -> IPv6 nodes must accept and attempt to process extension headers in any order and occurring any number of times in the same packet [...]

Dec. 1998



Red
IRIS

IETF

A Uniform Format for IPv6 Extension Headers

[...]further
that a
include



some issues
document
number of

extension headers [...]



Red
IRIS

IETF

Security Implications of the Use of IPv6

Extension

[...] this

ignore N



Neighbor Discovery

osts silently

s that use IPv6

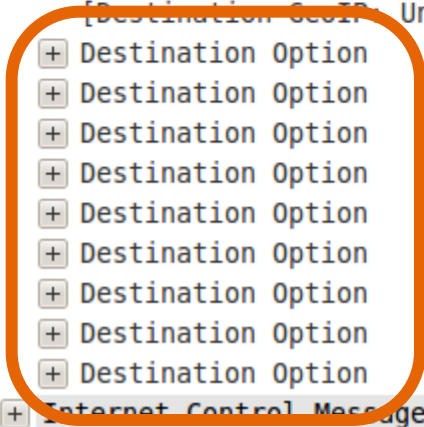
]

(F. Gont) - IPv6 maintenance Working Group (6man)



No.	Time	Source	Destination	Protocol	Length	Info
39	140.5401570	2003:444:555::8	fe80::a00:27ff:fe41:e52	ICMPv6	134	Echo (ping) request id=0x...
40	143.9236940	:::	ff02::16	ICMPv6	90	Multicast Listener Report...
42	144.6960230	:::	ff02::1:fff3:eae	ICMPv6	78	Neighbor Solicitation for...
43	145.6955330	fe80::a00:27ff:fe41:e52	ff02::2	ICMPv6	70	Router Solicitation from...

```
+ Frame 39: 134 bytes on wire (1072 bits), 134 bytes captured (1072 bits) on interface 0
+ Ethernet II, Src: 00:00:00_00:00:00 (00:00:00:00:00:00), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
- Internet Protocol Version 6, Src: 2003:444:555::8 (2003:444:555::8), Dst: fe80::a00:27ff:fe41:e52
  + 0110 .... = Version: 6
  + .... 0000 0000 .... .... .... = Traffic class: 0x00000000
  .... .... 0000 0000 0000 0000 0000 = Flowlabel: 0x00000000
  Payload length: 80
  Next header: IPv6 destination option (60)
  Hop limit: 64
  Source: 2003:444:555::8 (2003:444:555::8)
  Destination: fe80::a00:27ff:fe41:e52 (fe80::a00:27ff:fe41:e52)
  [Destination SA MAC: CadmusCo_41:0e:52 (08:00:27:41:0e:52)]
  [Source GeoIP: Unknown]
  [Destination GeoIP: Unknown]
  + Destination Option
  + Destination Option
  + Destination Option
  + Destination Option
  + Destination Option
  + Destination Option
  + Destination Option
  + Destination Option
  + Destination Option
  + Destination Option
+ Internet Control Message Protocol v6
```





Red
IRIS

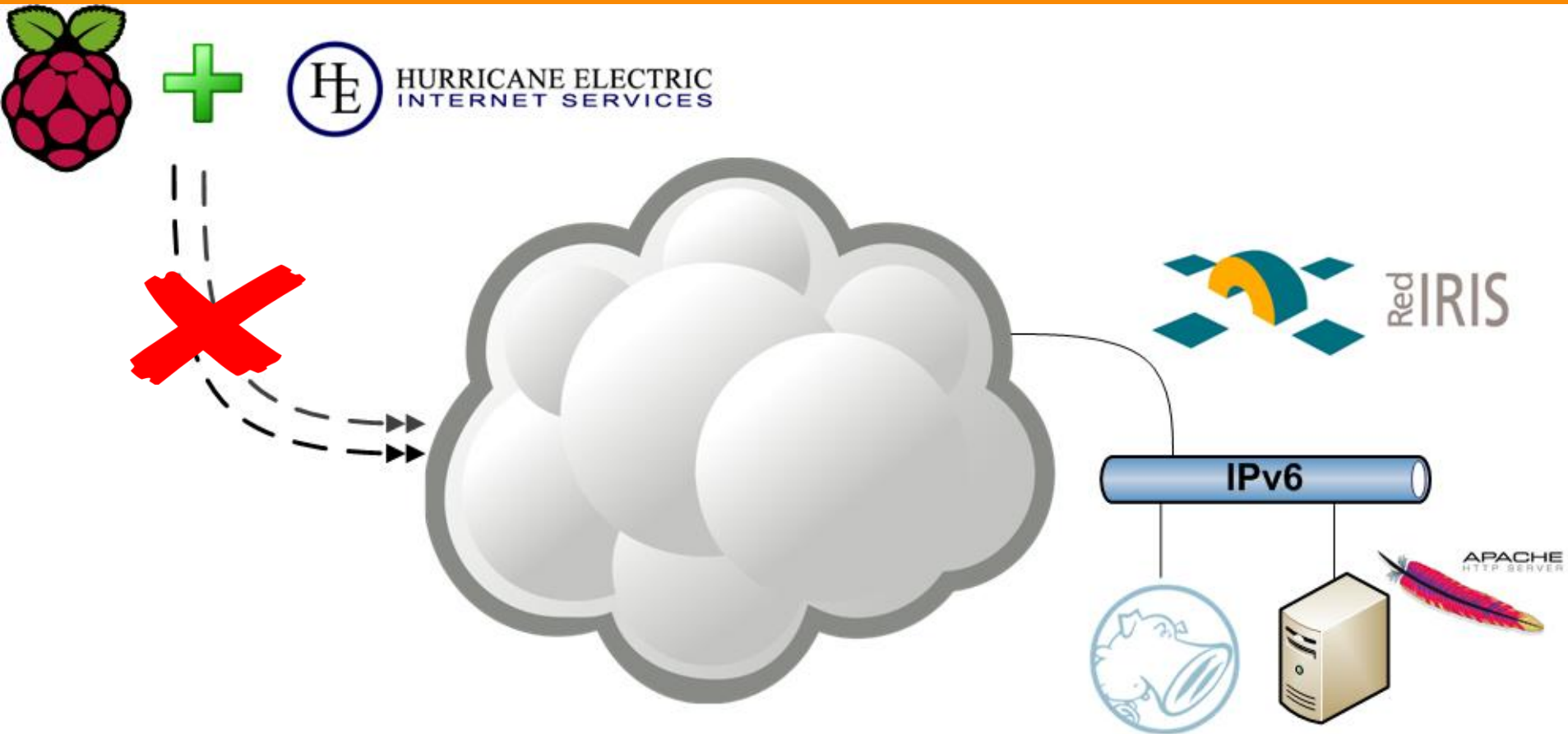
Topera v0.1

CONSECUENCIAS de TOPERA...



Red IRIS

Topera v0.1





Red IRIS

Topera v0.1



debian



Red IRIS

IPv6



APACHE
HTTP SERVER



Nmap Security Scanner

- Intro
- Ref Guide
- Install Guide
- Download
- Changelog
- Book
- Docs

Security Lists

- Nmap Hackers
- Nmap Dev
- Bugtraq
- Full Disclosure
- Pen Test
- Basics
- More

Security Tools

- Pass crackers
- Sniffers
- Vuln Scanners
- Web scanners
- Wireless
- Exploitation
- Packet crafters
- More

Site News

Advertising



Snort mailing list archives

By Date By Thread Search

Re: Interesting

From: Joel Esler <jesler () sourcefire com>

Date: Tue, 11 Dec 2012 20:33:04 -0500

We're looking into it as well. Sorry I haven't responded sooner.

--

Joel Esler
Sent from my iPhone ☐

On Dec 11, 2012, at 5:02 PM, "Lay, James" <james.lay () wincofoods com> wrote:

Thanks Elz...nice to know someone is looking at it J

James

From: beenph [mailto:beenph () gmail com]
Sent: Tuesday, December 11, 2012 10:10 AM
To: Lay, James
Cc: snort-users () lists sourceforge net
Subject: Re: [Snort-users] Interesting

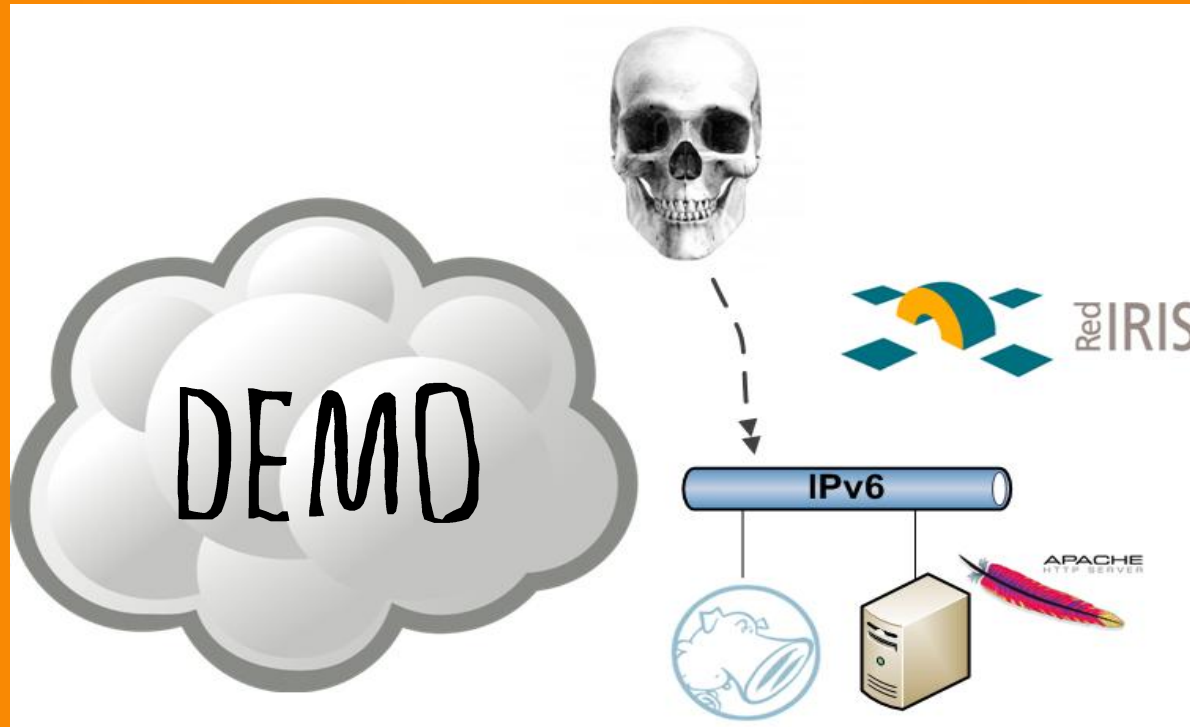
On Tue, Dec 11, 2012 at 9:59 AM, Lay, James <james.lay () wincofoods com> wrote:

<http://code.google.com/p/topera/>



Red
IRIS

Topera v0.1





Red IRIS

Nuevos Ataques

TOPERA evoluciona...





Red
IRIS

Slow HTTP

Denial Of Service Attack





Red
IRIS

Slowloris

```
Follow TCP Stream

Stream Content
GET / HTTP/1.1
Host: victima
User-Agent: Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 5.1; Trident/4.0; .NET CLR
1.1.4322; .NET CLR 2.0.50313; .NET CLR 3.0.4506.2152; .NET CLR 3.5.30729; MSOffice 12)
Content-Length: 42
X-a: b
X-a: b
X-a: b
X-a: b
```



Red
IRIS

TOPERA v0.2

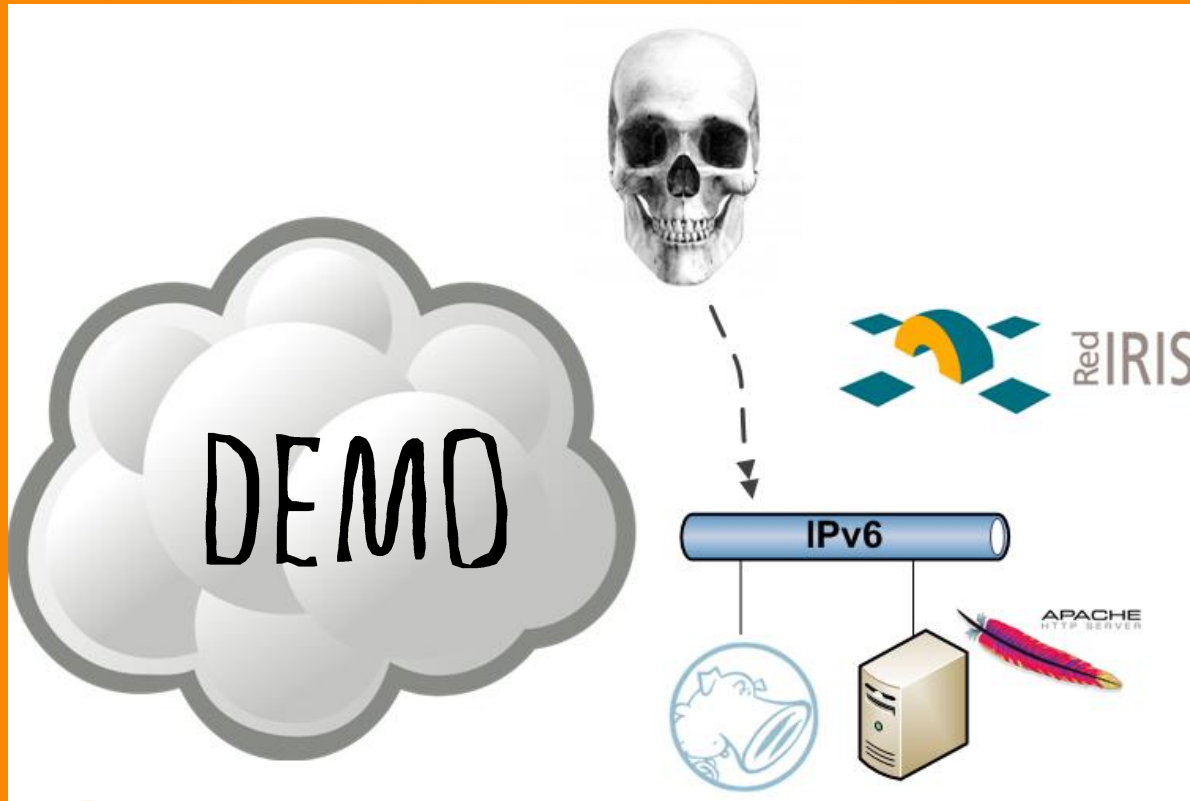
Y si mezclamos todo?





Red IRIS

Topera v0.2





Red
IRIS

Topera v0.2

<https://github.com/toperaproject/topera/>



Red IRIS

Es un Riesgo Real??



acias Ralli, Fran!!



Red IRIS

Es un Riesgo Real??

SOURCEfire®



ABOVE SECURITY™
DEPUIS/SINCE 1999



INDUSTRIAL DEFENDER®

BT 

ALTOR
NETWORKS



astaro
internet security



OPTENET
Get optimal internet

DIGITAL SECURITY
true 
assurance | clarity | insight



BRCONNECTION



SAVVIS™

buguroo 
offensive security



Red
IRIS

Gracias!!

® **buguroo** 
offensive security

