



# SONICWALL<sup>TM</sup>

## Security for Smart Cities

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# ¿En que pensamos cuando escuchamos Ciudades Inteligentes?



[illegible]



/ cloud /



/ movilidad /



/ big data /



/ colaboración

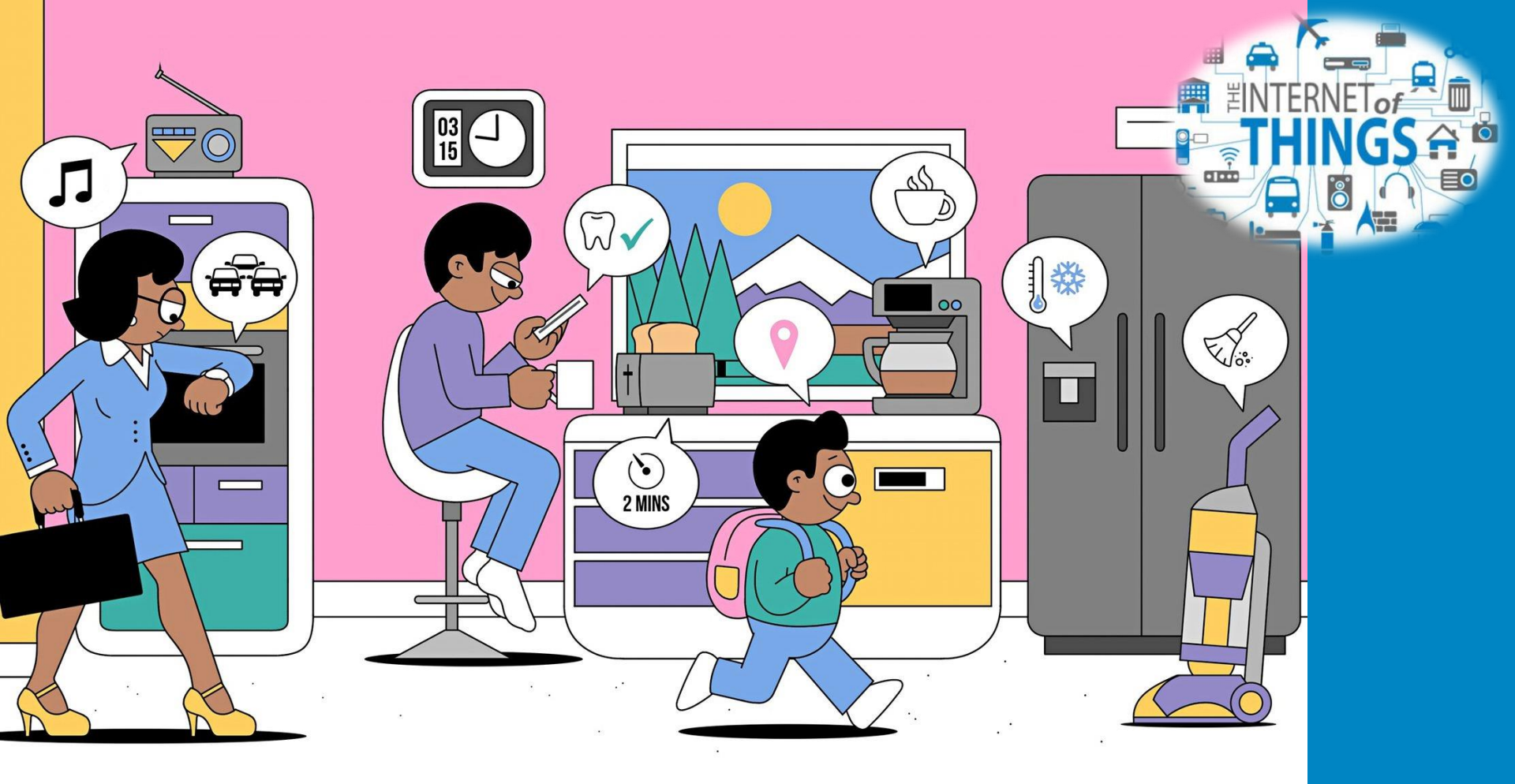
A hand is shown from the bottom left, palm up, holding a glowing, golden-yellow digital cityscape. The cityscape is composed of various skyscrapers and buildings, some of which are translucent and show internal data structures. Overlaid on the cityscape are several circular and rectangular data visualizations, including a large central sun-like glow, a circular radar-like chart, and various smaller charts and graphs. The background is dark blue with a faint cityscape and data overlays. The overall theme is digital connectivity and data visualization.

Actualmente, hay cerca de  
9 billones de dispositivos  
conectados a Internet

En el 2020, **Habr  mas de  
50 Billones**



Todo esta  
conectado



# Dispositivos IoT en el hogar – ¿están seguros?

## Your TV might be watching you



By Erica Fink and Laurie Segall @CNNTech August 1, 2013: 11:32 AM ET

**“Cualquiera que diga que sus sistemas son in-hackeables esta equivocado”**

CNET » Security » Belkin WeMo smart home networks in danger of hacks

## Belkin WeMo smart home networks in danger of hacks

Researchers warn that more than 500,000 home automation devices have vulnerabilities that would allow attackers to remotely take control of thermostats, lighting, sprinkler systems, and more.

by **Dara Kerr** @darakerr / February 18, 2014 6:10 PM PST



**Kashmir Hill**, Forbes Staff

Welcome to The Not-So Private Parts where technology & privacy collide

[Follow](#) (1,810)

TECH | 8/27/2013 @ 3:47 PM | 23,539 views

## 'Baby Monitor Hack' Could Happen To 40,000 Other Foscam Users

**Los consumidores deben securizar y monitorear las redes hogareñas**

CNET » Security » FTC and TrendNet settle claim over hacked security cameras

## FTC and TrendNet settle claim over hacked security cameras

The camera maker settles a claim after hundreds of its home security cameras were hacked and videos of babies sleeping and children playing were published on the Web.

by **Dara Kerr** @darakerr / September 4, 2013 6:30 PM PDT

**Tus Usuarios de IT son usuarios de IoT.  
¿Puedes confiar en tus usuarios?**

# Dispositivos IoT para llevar – ¿están seguros?

## Google Glass can be hacked via JavaScript code due to security flaw

Posted: 07 Feb 2014, 08:25, by Peter K.

¿Qué tipo de datos recopila su dispositivo móvil (wearable)?



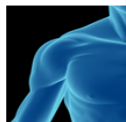
Eric Basu, Contributor

I offer a military perspective on entrepreneurship & govt contracting

ENTREPRENEURS | 8/03/2013 @ 8:08PM | 10,321 views

## Hacking Insulin Pumps And Other Medical Devices From Black Hat

One of the briefings at [Black Hat](#) this year was a session on how vulnerable medical devices are to cyber attack, given by [Jay Radcliff](#). This was part of our [company's coverage of Black Hat and Defcon highlights sent via social media](#). Although the actual



News

## Pacemaker hack can deliver deadly 830-volt jolt

Pacemakers and implantable cardioverter-defibrillators could be manipulated for an anonymous assassination

By Jeremy Kirk

October 17, 2012 12:40 AM ET

## Fiat Chrysler recalls 1.4 million cars after Jeep hack

1/15/2014 5:15 PM ET | By Holly Ellyatt, CNBC



## Car hacking: The next big cybercrime?

As the in-car computers pick up more steam, keep in mind that more technology often means more ways for crooks to get you.



Jeep's Grand Cherokee is one of the recalled cars

El WiFi del auto tiene las mismas vulnerabilidades de seguridad que los WiFi tradicionales

Los CSOs en las organizaciones con personas que viajan deben estar preocupados a cerca de estas vulnerabilidades ya que un atacante podría usarlos para accede a información de la compañía

# MR. ROBOT

[ Pause ]



usa #MrRobot  
NEW EPISODE

SONICWALL™

**El perímetro se extiende...**  
Diferentes puntos de  
entrada a la red



1



# Modern-day Security

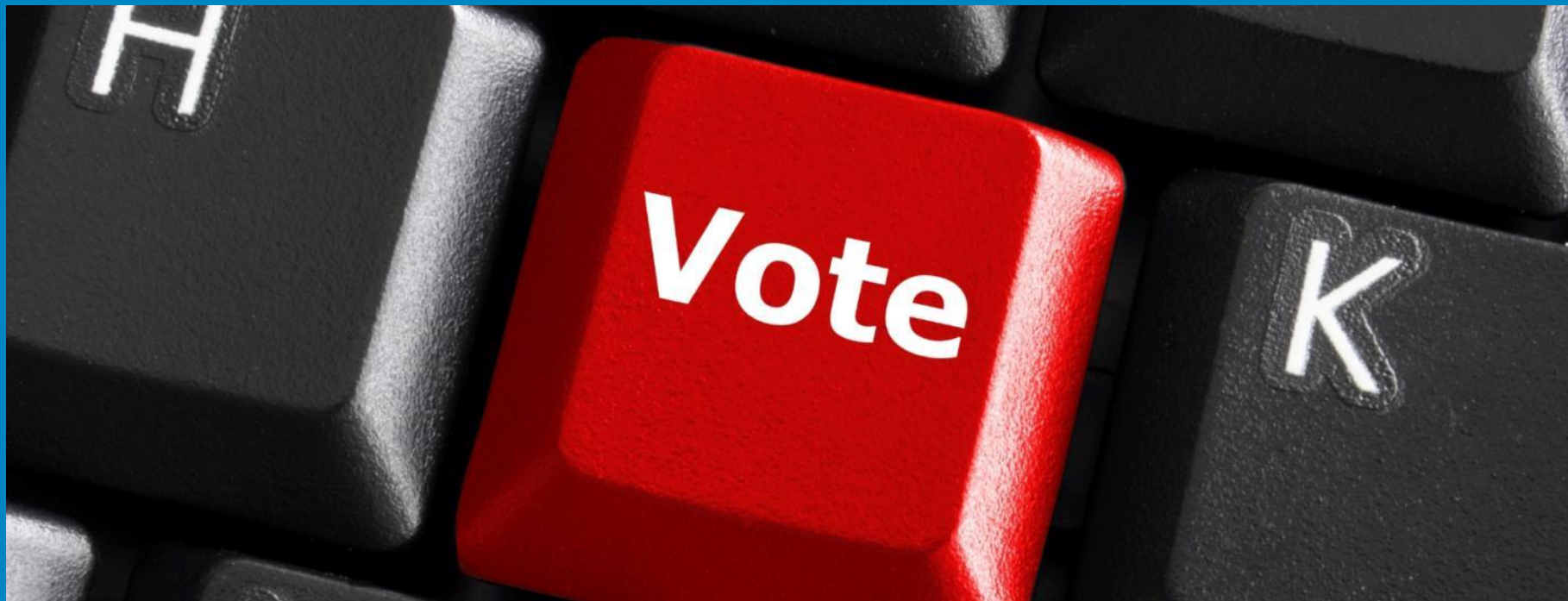
## Stateful Packet Inspection



## Deep Packet Inspection



# Pregunta Numero #1



¿Quien esta analizando trafico HTTPS actualmente?

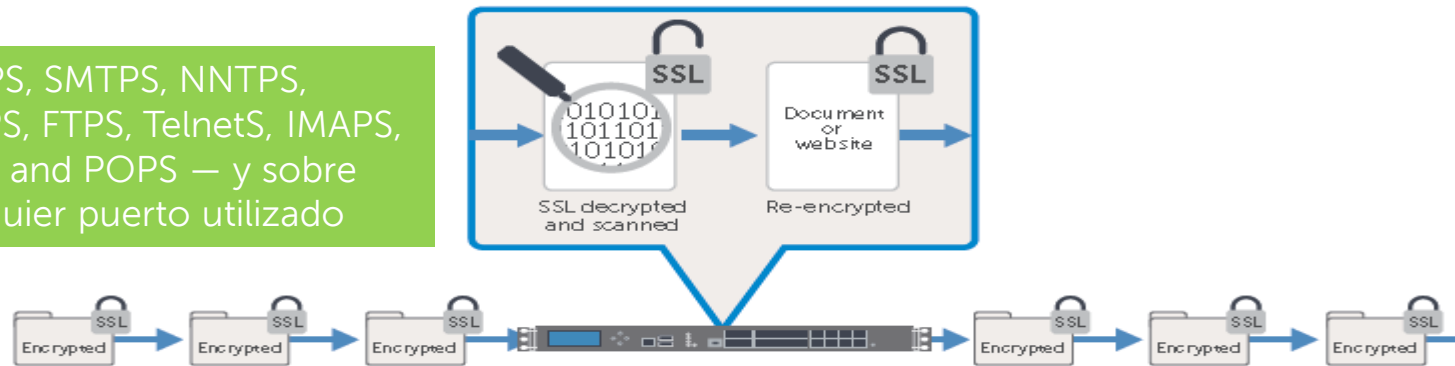


# DPI-SSL - Inspección de SSL

Casi el 65% del trafico de las redes corporativas el encriptado usando SSL.

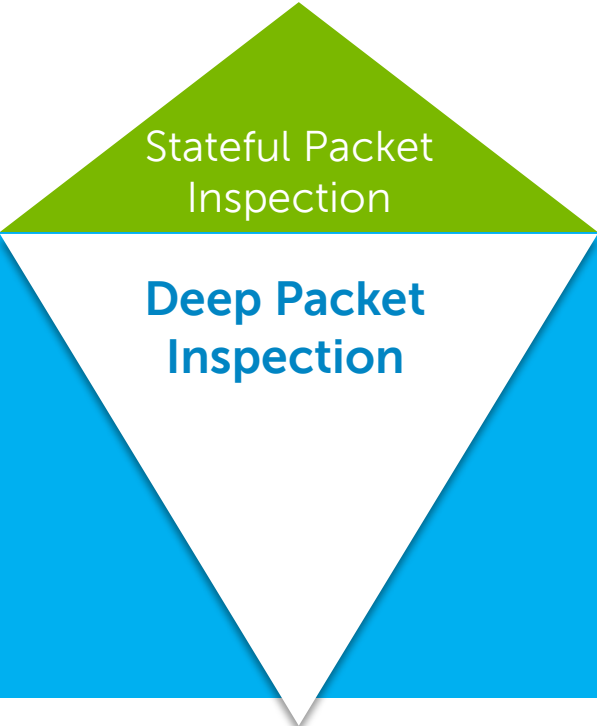
2015 Dell Security Threat Report

HTTPS, SMTPS, NNTPS,  
LDAPS, FTPS, TelnetS, IMAPS,  
IRCS, and POPS — y sobre  
cualquier puerto utilizado



Organizaciones que no inspeccionen trafico SSL, no pueden analizar aproximadamente 2/3 del trafico de red.

# Defensa-en-profundidad: Seguridad a través de **Deep Packet Inspection**



Stateful Packet  
Inspection

**Deep Packet  
Inspection**

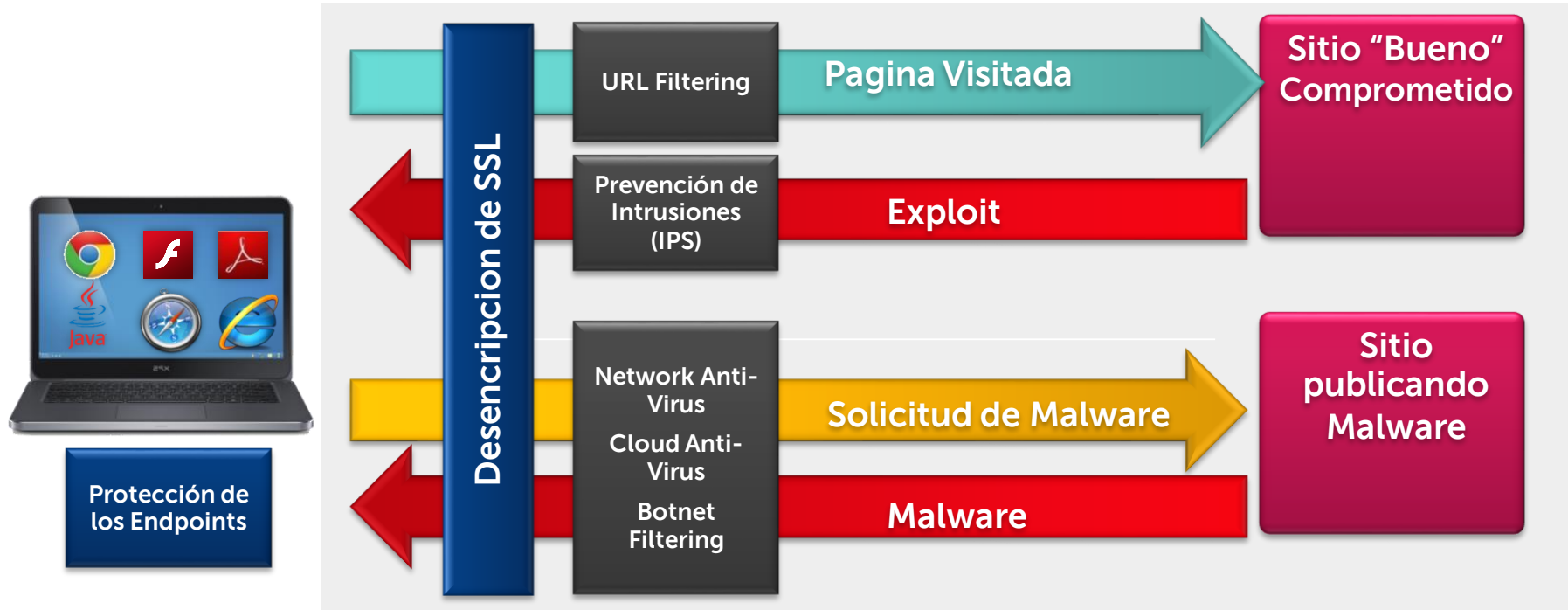
1. Stateful packet inspection
2. Prevención de Intrusiones (IPS)
3. Prevención de Amenazas (anti-virus/spyware)
4. Des-encipción de SSL
5. Identificación y control de aplicaciones
6. Gestión de anchos de banda (Traffic Shapping)
7. Filtros de Navegación
8. Y mucho mas...

# Prevención de Intrusos, AntiVirus y Anti-spyware



# Next Generation Firewall (NGFW)

Interrumpir el ciclo del malware





/ evasión /

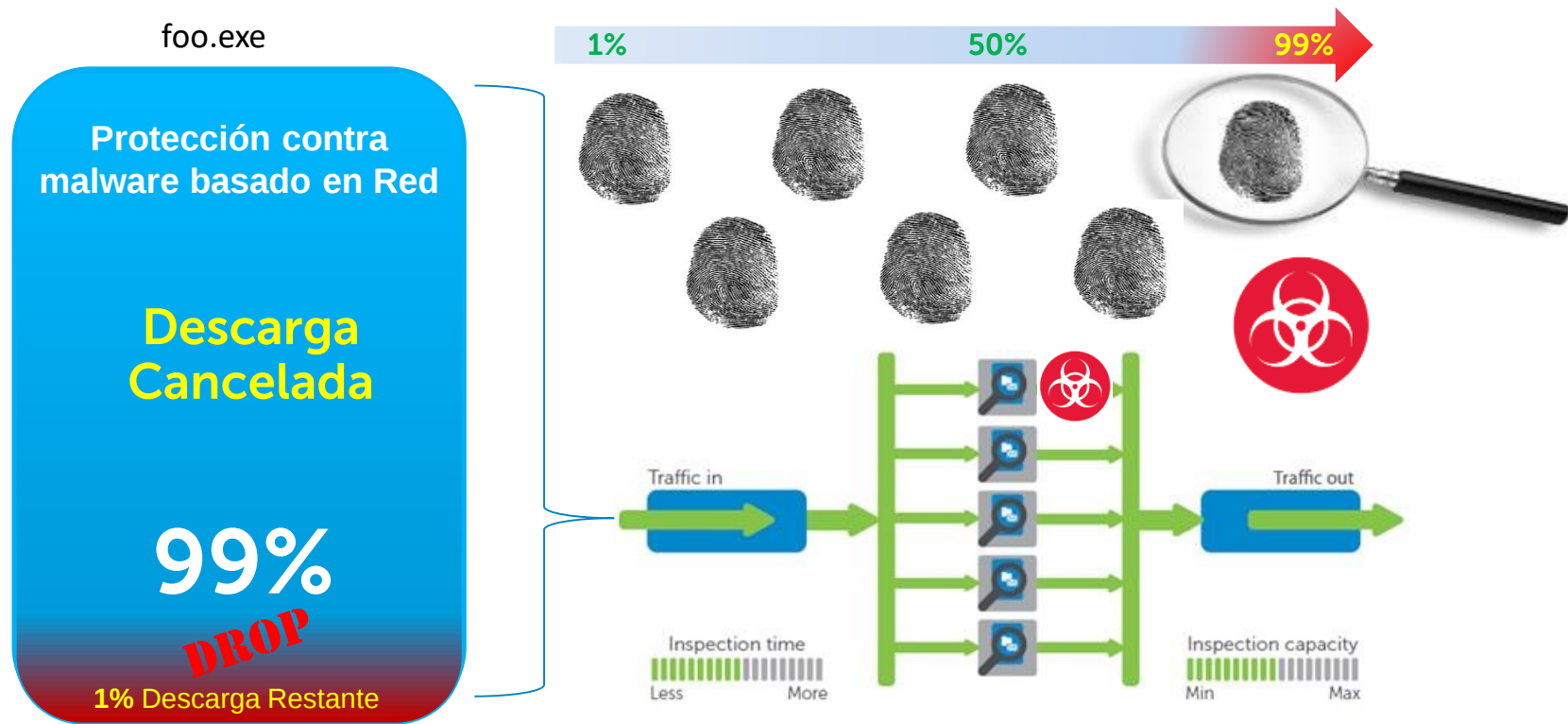


/ prevención de intrusiones /

# Somos muy diferentes

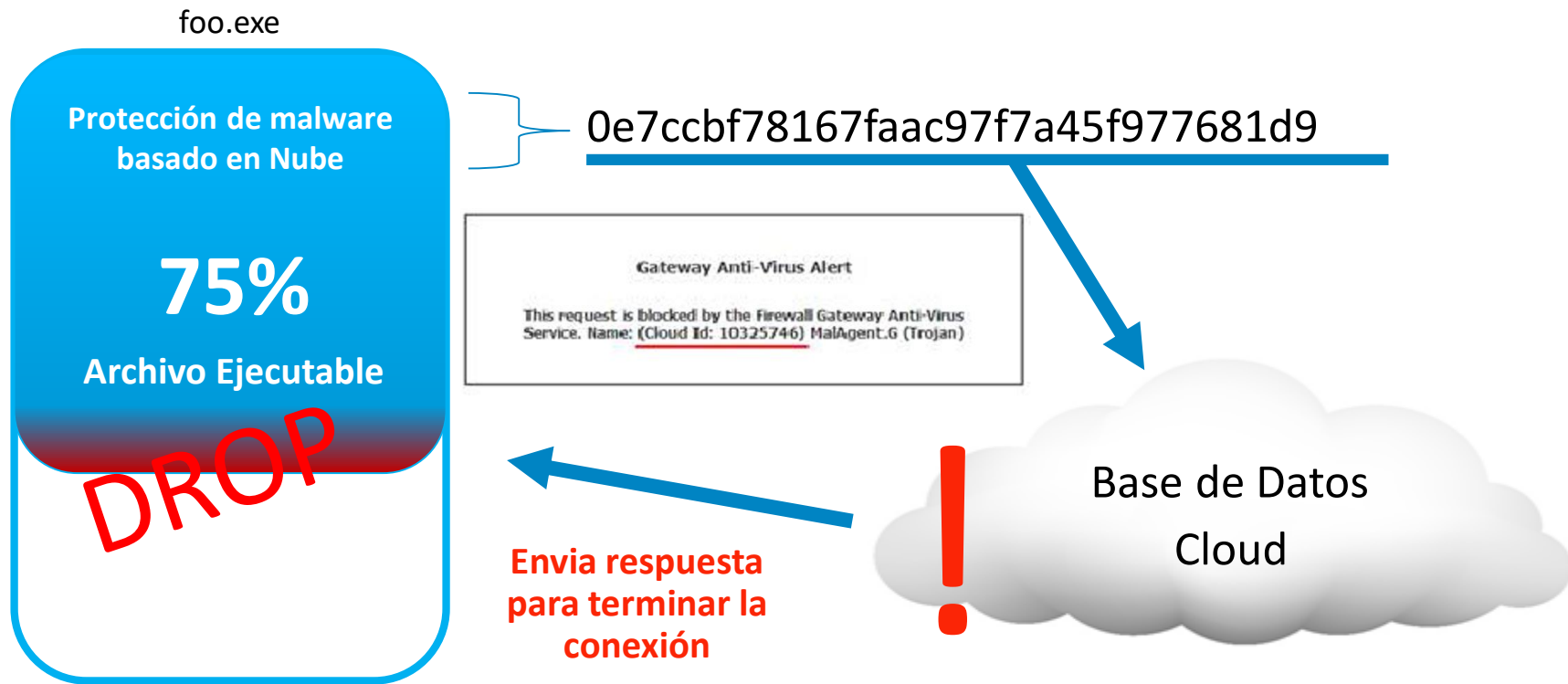
- Arquitectura multi-core
- Sin Proxy
- Sin disco duro
- Baja latencia
- Fácil de gestionar
- Con alto rendimiento DPI –SSL
- Con alta capacidad de conexiones
- Simple:
  - Fuente redundante –SM
  - HA Activo-Pasivo / A-A

# On Premise + Cloud – Protección Contra Malware



**Envío de Alertas & Descartar Conexiones**

# On Premise + Cloud – Protección Contra Malware



MR. ROBOT

usa #MrRobot  
NEW EPISODE

EXECUTIVE PRODUCER  
SAM ESMAIL

SONICWALL™

# Ransom ware...



## Pago requerido.

El servidor acepta el pago solamente en Bitcoin (BTC).

1. Paga la cantidad de 2.5 BTC (alrededor de 575 EUR) para a la dirección:  
13H [REDACTED] TyV

2. La transacción tardará cerca de 15-30 minutos para que sea confirmada.

El descifrado se iniciará automáticamente. No puedes: apagar la computadora, ejecutar el antivirus, deshabilitar la conexión a Internet. Fallos durante la recuperación de claves y descifrado de archivos puede conducir a daños accidentales en los ficheros.

Si no tienes Bitcoins haz clic en 'Cambiar'.

69 49 39

Cambiar >>



```

-_-~+~
-SS==~S=+~+~+~
+~|+~+~S~
-~+|+~$~$~$~+~+
            !!!INFORMACIÓN IMPORTANTE!!!

```

Todos sus archivos están encriptados con RSA-2048 y los sistemas de cifrado AES-128.  
Para más información sobre RSA consulte los siguientes enlaces:  
<http://es.wikipedia.org/wiki/RSA>  
[http://es.wikipedia.org/wiki/Advanced\\_Encryption\\_Standard](http://es.wikipedia.org/wiki/Advanced_Encryption_Standard)

La descryptación de sus archivos es solo posible con una clave privada y un programa, el cual está en nuestro servidor secreto.

Para recibir su clave privada de clic en uno de los siguientes enlaces:

1. <http://32kl2rwsjvqjeu7.tor2web.org/E2B77703FC4B858B>
2. <http://32kl2rwsjvqjeu7.onion.to/E2B77703FC4B858B>
3. <http://32kl2rwsjvqjeu7.onion.cab/E2B77703FC4B858B>

Si todos estos enlaces no están disponibles, siga los siguientes pasos:

1. Descargue e instale el Navegador Tor: <https://www.torproject.org/download/download-easy.html>
2. Después de una instalación exitosa, ejecute el navegador y espere la inicialización.
3. Introduzca en la barra de direcciones: [32kl2rwsjvqjeu7.onion/E2B77703FC4B858B](http://32kl2rwsjvqjeu7.onion/E2B77703FC4B858B)
4. Siga las instrucciones en el sitio.

!!!Su ID de identificación personal: E2B77703FC4B858B!!!

```

~+~+~+~
++~+~+~+~$~$~+~+~

```

## Ransomware attacks on Hospitals put Patients at Risk

Sunday, April 03, 2016 Rakesh Krishnan

85 2.2K 1690 334 77 2163



Just last week, the Federal Bureau of Investigation (FBI) issued an urgent "Flash" message to the businesses and organisations about the threat of **Samsam Ransomware**, but the ransomware has already wreaked havoc on some critical infrastructure.

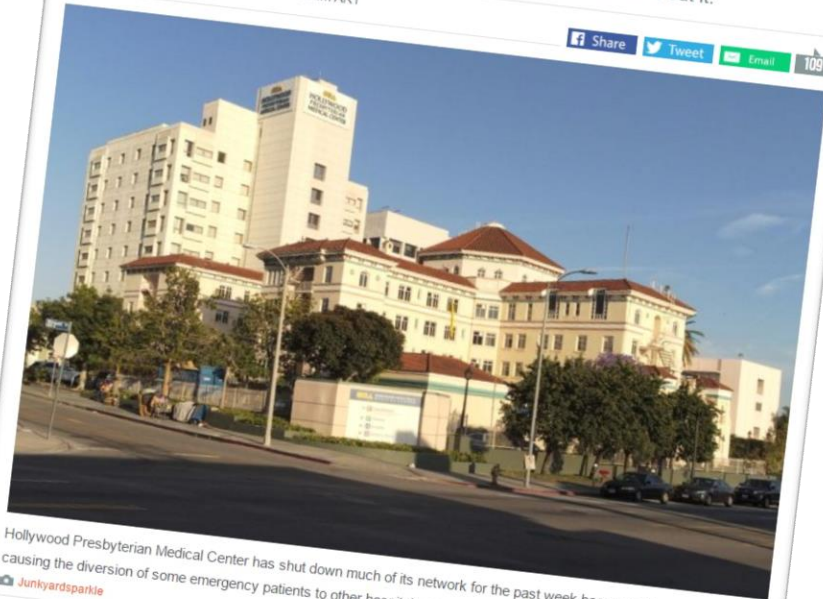
MedStar, a non-profit group that runs 10 hospitals in the Baltimore and Washington area, was attacked with Samsam, also known as **Samas** and **MSIL**, last week, which encrypted sensitive data at the hospitals.

## Patients diverted to other hospitals after ransomware locks down key software

Crypto-extortion increasingly targets bigger victims; most stay silent about it.

by Sean Gallagher - Feb 17, 2016 11:56am ART

Share Tweet Email 109



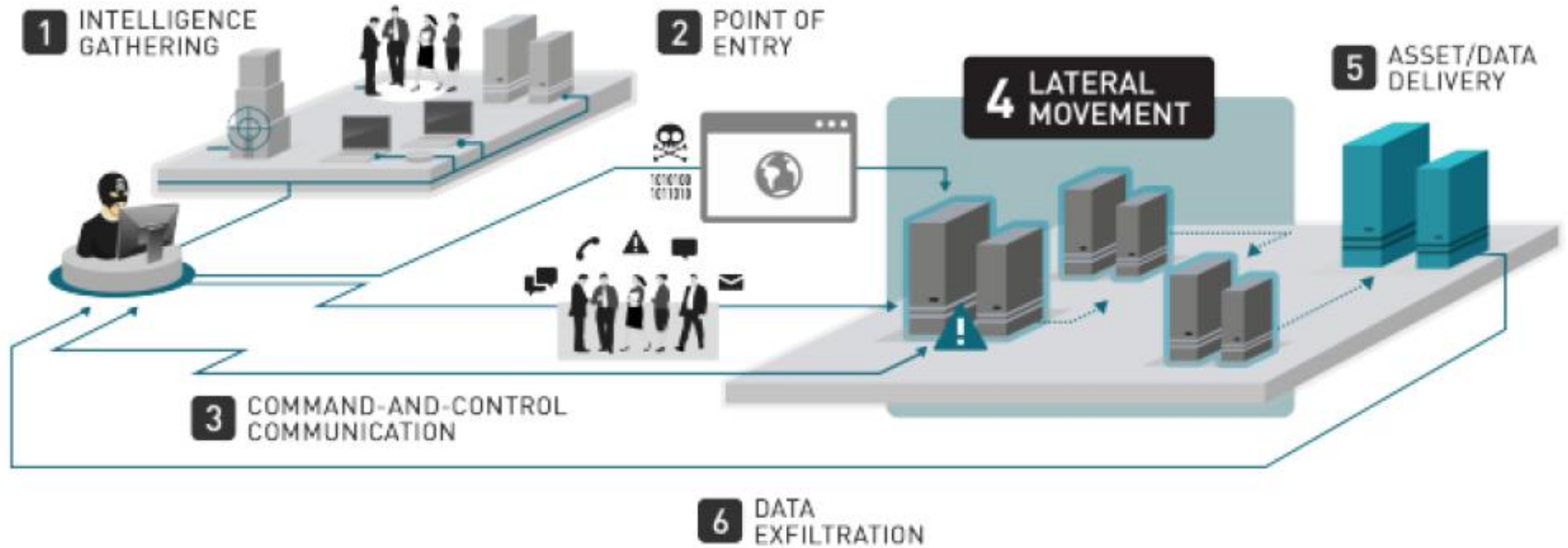
Hollywood Presbyterian Medical Center has shut down much of its network for the past week because of ransomware, causing the diversion of some emergency patients to other hospitals, according to sources at the hospital.

Hollywood Presbyterian Medical Center, a hospital in Los Angeles, is the victim of what officials describe as an ongoing cyberattack. A hospital spokesperson told Ars in a prepared statement that "patient care has not been affected" by the intrusion. And an executive of the hospital told reporters

<http://thehackernews.com/2016/04/hospital-ransomware.html>

<http://arstechnica.com/security/2016/02/la-hospital-latest-victim-of-targeted-crypto-ransomware-attack/>

# Movimiento Lateral



Six Stages of an APT attack

# NEW!!! - Introducing SonicWALL Capture Advanced Threat Protection Service

Cloud service detects and blocks zero-day threats at the gateway



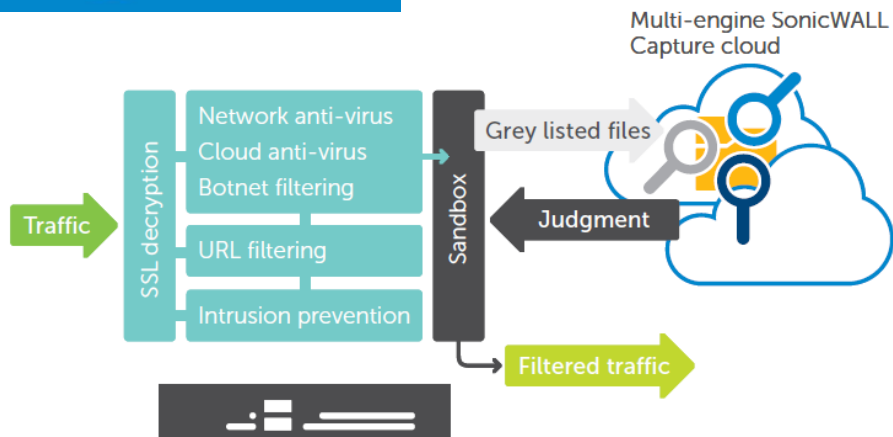
**Multi-engine advanced threat analysis  
detects more threats, can't be evaded**

- Virtualized sandbox
- Full system emulation
- Hypervisor level analysis

**Broad file type and OS environment  
analysis**

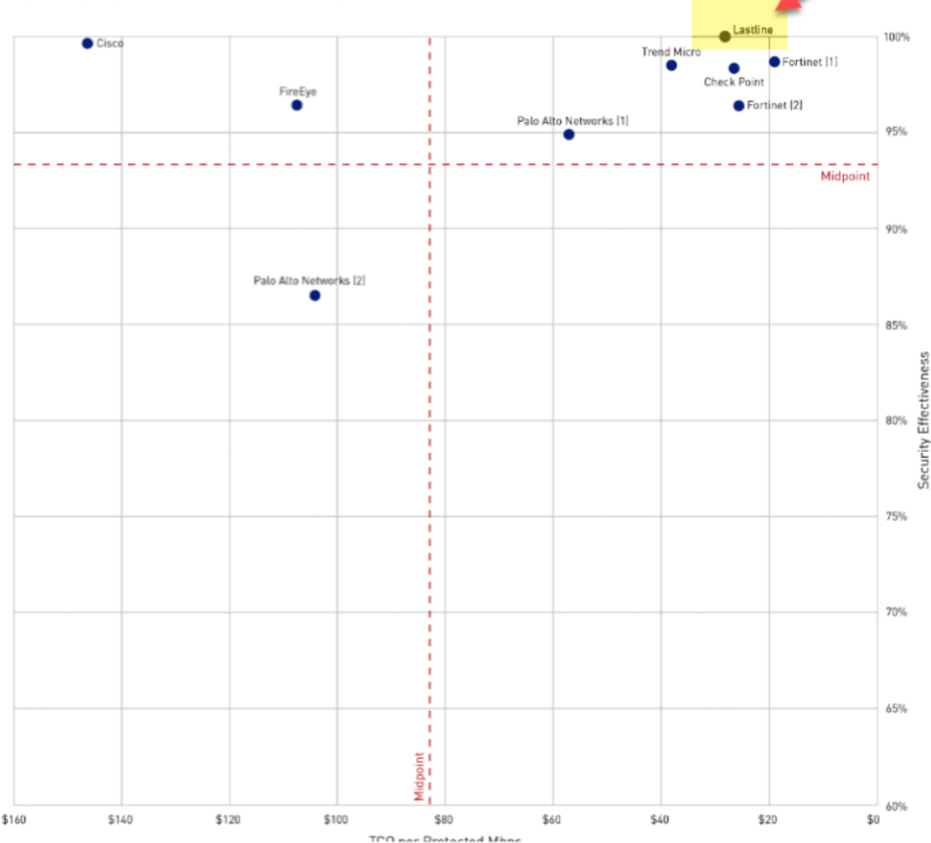
- PE, MS Office, PDF, archives, JAR, APK
- Windows, Android and Mac OS

**Automated and manual file submission**



# Posicionamiento Capture ATP

## BREACH DETECTION SYSTEMS (BDS) SECURITY VALUE MAP™



Sandbox líder en el mercado

**NSS Labs**



**2015 y 2016**

<http://landing.lastline.com/nss-2015>

<http://landing.lastline.com/nss-2016>

# Control de Aplicaciones

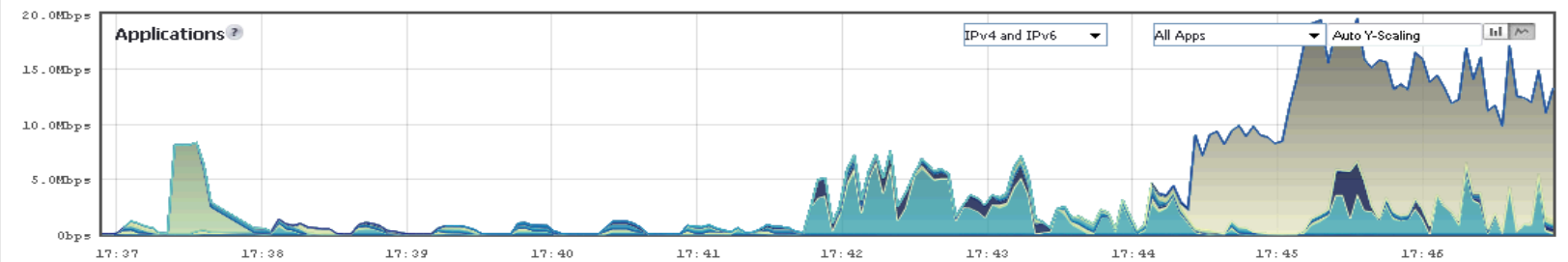


- Dashboard
- Multi-Core Monitor
- Real-Time Monitor
- AppFlow Dash
- AppFlow Monitor
- AppFlow Reports
- Threat Reports
- User Monitor
- BWM Monitor
- Connection Monitor
- Packet Monitor
- Log Monitor
- System
- Network
- 3G/4G/Modem
- SonicPoint
- Firewall
- Firewall Settings
- DPI-SSL
- VoIP
- Anti-Spam
- VPN
- SSL VPN
- Virtual Assist
- Users
- High Availability
- Security Services
- WAN Acceleration
- AppFlow
- Log

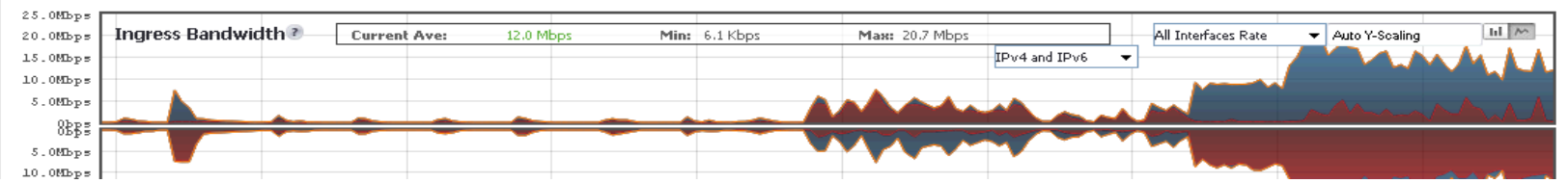
# Real-Time Monitor

To configure, go to [AppFlow > Flow Reporting](#). [Using Local Collector] 17:46:54 Sep 04

Refresh every:  sec. View Range:  Data Source:



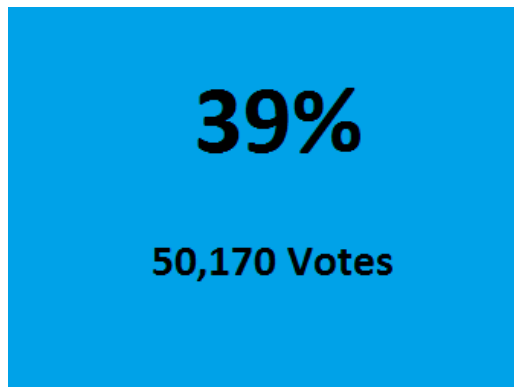
|                          |                               |                      |                       |                              |                          |                        |                                    |                             |
|--------------------------|-------------------------------|----------------------|-----------------------|------------------------------|--------------------------|------------------------|------------------------------------|-----------------------------|
| General Multicast        | General DNS                   | Service NTP          | General HTTPS MGMT    | Microsoft Remote Desktop-436 | Chart Beat-3763          | Image-4239             | HTTP-5147                          | DoubleClick-6261            |
| SSL-5159                 | Facebook-6363                 | Facebook-6921        | General HTTP5         | General HTTP                 | Facebook-2822            | Google-9379            | DoubleClick-7900                   | DNS-4398                    |
| General IKE              | Facebook-6985                 | OCSF-6908            | Image-4254            | Image-4243                   | DNS-4395                 | Site Scout-7883        | ScoreCard Research-3990            | IMR Worldwide-7023          |
| YouTube-5727             | Google Analytics-2226         | Others               | YouTube-9256          | YouTube-9255                 | Chart Beat-3767          | Betr Ad-7871           | Shockwave Flash (SWF)-575          | HTTP-5148                   |
| MediaMath-7892           | Adsonar-7867                  | Facebook-2821        | Google Analytics-7885 | Google Safe Browsing-707     | Google Safe Browsing-708 | Adsafe Media-7910      | Google-6015                        | DNS-6818                    |
| Service HTTPS Management | Encrypted Key Exchange-5      | General LDAP         | CIFS-5181             | Service SMB                  | Service Kerberos TCP     | Microsoft Netlogon-602 | Microsoft RPC End Point Mapper-477 | Service RPC Services (IANA) |
| Service DCE EndPoint     | Service Terminal Services TCP | Atlas DMT-2228       | Double Verify-7872    | Serving-Sys-7864             | General NETBIOS          | DNS-5183               | Google Analytics-5874              | Aggregate Knowledge-7907    |
| Google-6011              | Image-8682                    | Google Analytics-704 |                       |                              |                          |                        |                                    |                             |



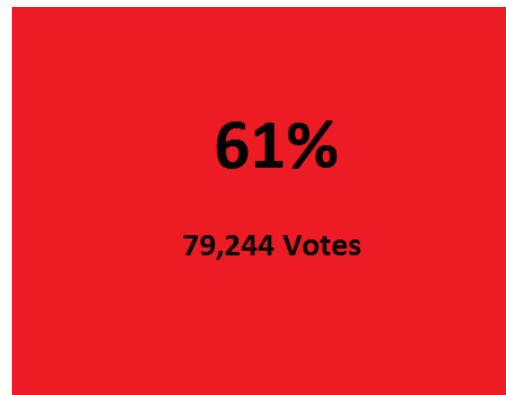
# La importancia del control de navegación

- Respondan esta pregunta.... Cuantos de ustedes preferirían....

- Mostrar a sus amigos y familia su Historial de Internet



- Vivir cerca de un volcán activo



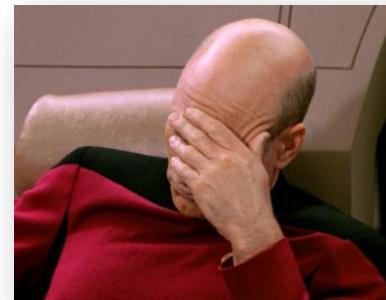
# La importancia del control de navegación

- Alguien esta viendo un sitio que probablemente no debería estar viendo.



# La importancia del control de navegación

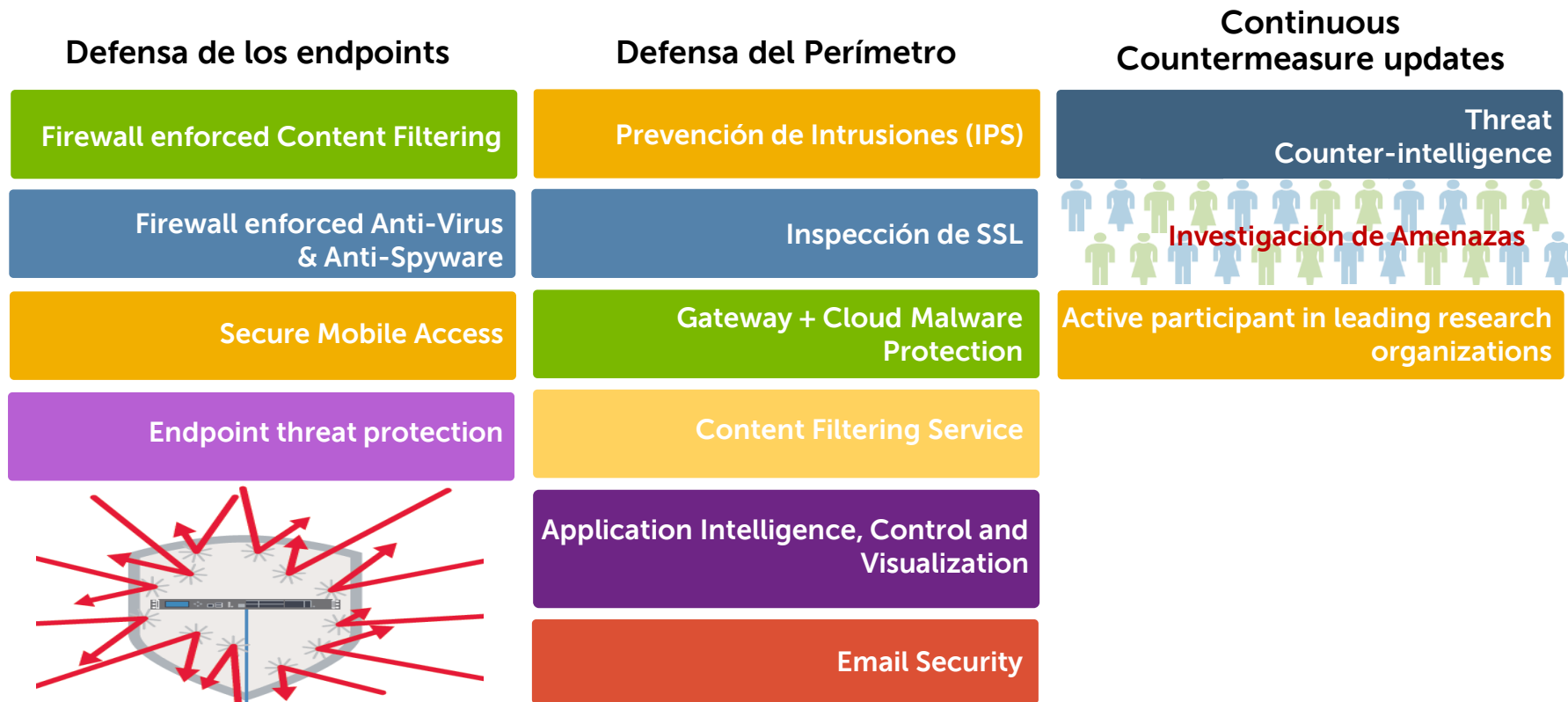
- Alguien esta viendo un sitio que probablemente no debería estar viendo.
- Alguien se ofende e inicia demandas contra el canal!.

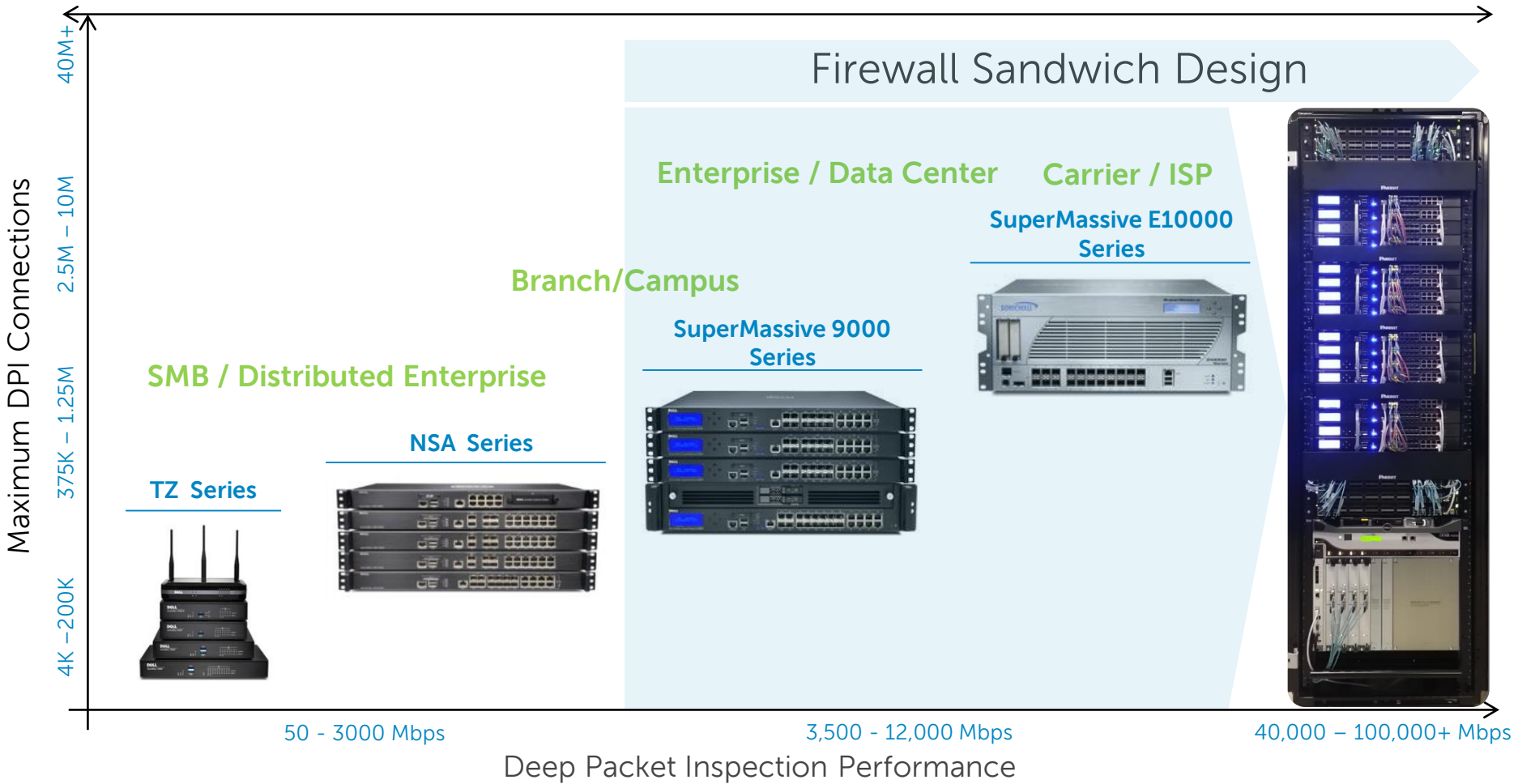


# La importancia del control de navegación



# Defensa-en-profundidad con múltiples capas de protección de amenazas





# Firewall Sandwich Design

# Convergencia de la seguridad y networking



Dell SonicWALL GMS

Gestion centralizada multi-sucursal



Dell NG-FW SonicWALL



Dell Networking X-Series



Access Points  
Dell SonicWALL

## Gestión Centralizada multi-punto

# Dell Secure Mobile Access (SMA)

## Detección

### Control de seguridad en punto final.

Detecta la identidad y el estado de seguridad del dispositivo remoto

## Conexión

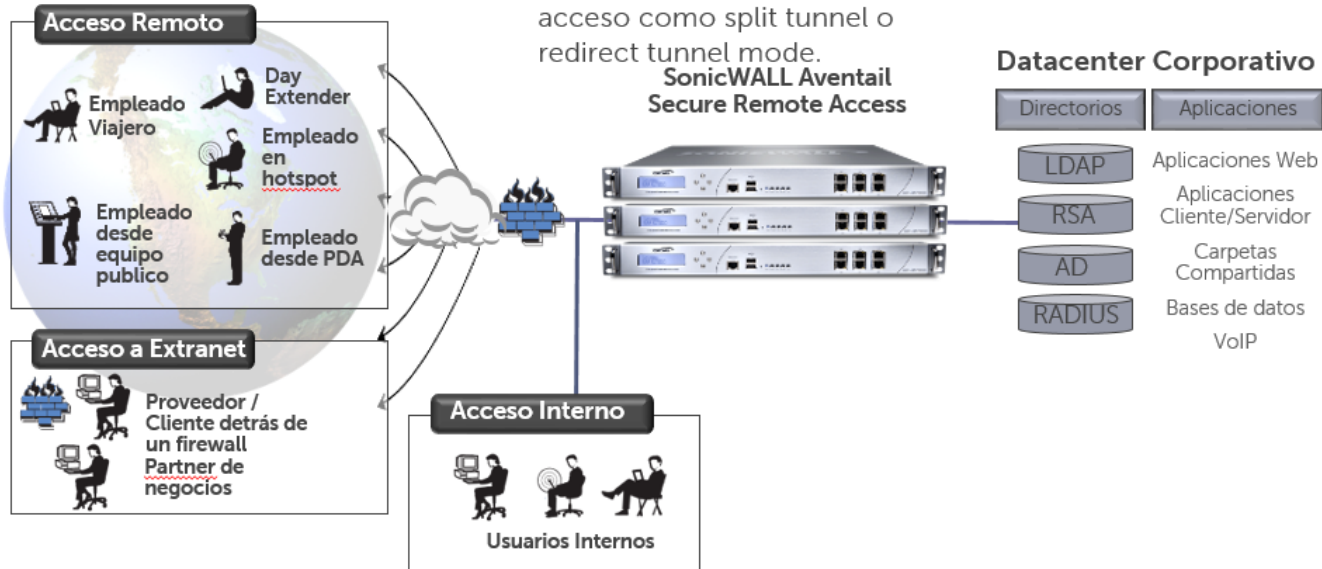
### Acceso a redes de forma segura.

Garantiza el acceso seguro y sencillo a todos los recursos de la red, definiendo perfiles de acceso como split tunnel o redirect tunnel mode.

## Protección

### Gestión Centralizada.

Refuerza el control del acceso de los equipos, permitiendo a los usuarios acceder únicamente a las aplicaciones autorizadas.



## Multi-plataforma:

- Windows
- Linux
- Mac
- Dispositivos Móviles

# SMA - Acceso remoto desde equipos móviles

(BYOD - Bring Your Own Device)

## Mobile Connect for iOS

## Mobile connect for Android

- Cliente nativo para acceso remoto a través de túnel
- **Endpoint control:** Capacidad de validar al equipo remoto de acuerdo a:
  - Numero de IMEI
  - Detección de Jailbreak en Apple (IOS)
  - Detección de Rooted device (Android)
  - Control de Aplicaciones
  - Per-App VPN



Android  
Marketplace



kindle fire



SONICWALL™

# SonicWALL Email Security



Protection  
Spam, Virus,  
Phishing

## Policy

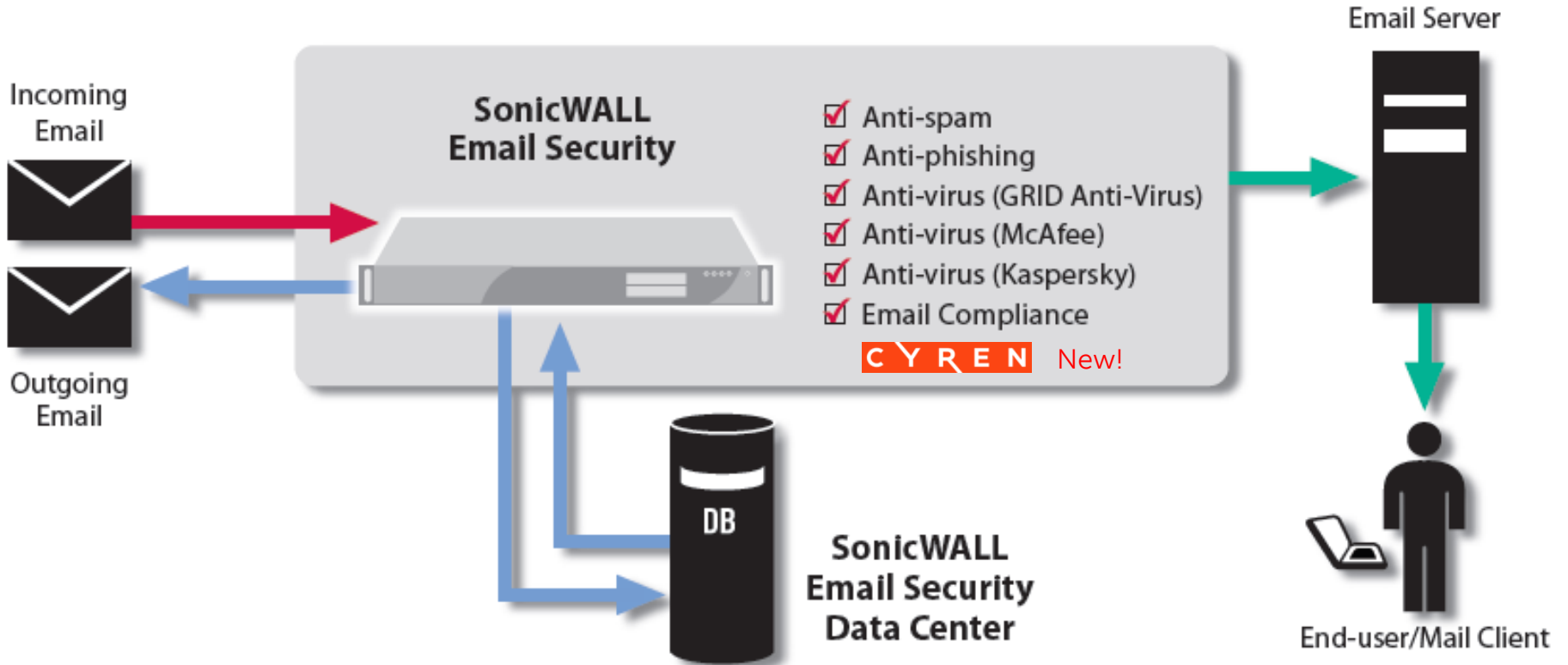
A policy described  
government, private  
"Statement of Inter  
important organiza

Compliance &  
Encryption



DMARC  
Brand Protection

# SonicWall Email Security



¡¡¡Gracias!!!

¿Preguntas?

SONICWALL<sup>TM</sup>

The SonicWall logo features the word "SONICWALL" in a bold, dark grey sans-serif font. A small "TM" trademark symbol is positioned to the upper right of the word. Below the "WALL" portion of the text, there is a stylized orange swoosh that curves upwards and to the right, resembling a stylized "S" or a signal wave.

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Sales Engineer SoLA  
[mrey@sonicwall.com](mailto:mrey@sonicwall.com)