



## Trends & Threats June 08



Robin Sundin

IronPort is now  
part of Cisco.



# IronPort contacts

- **Tomas Andberg**

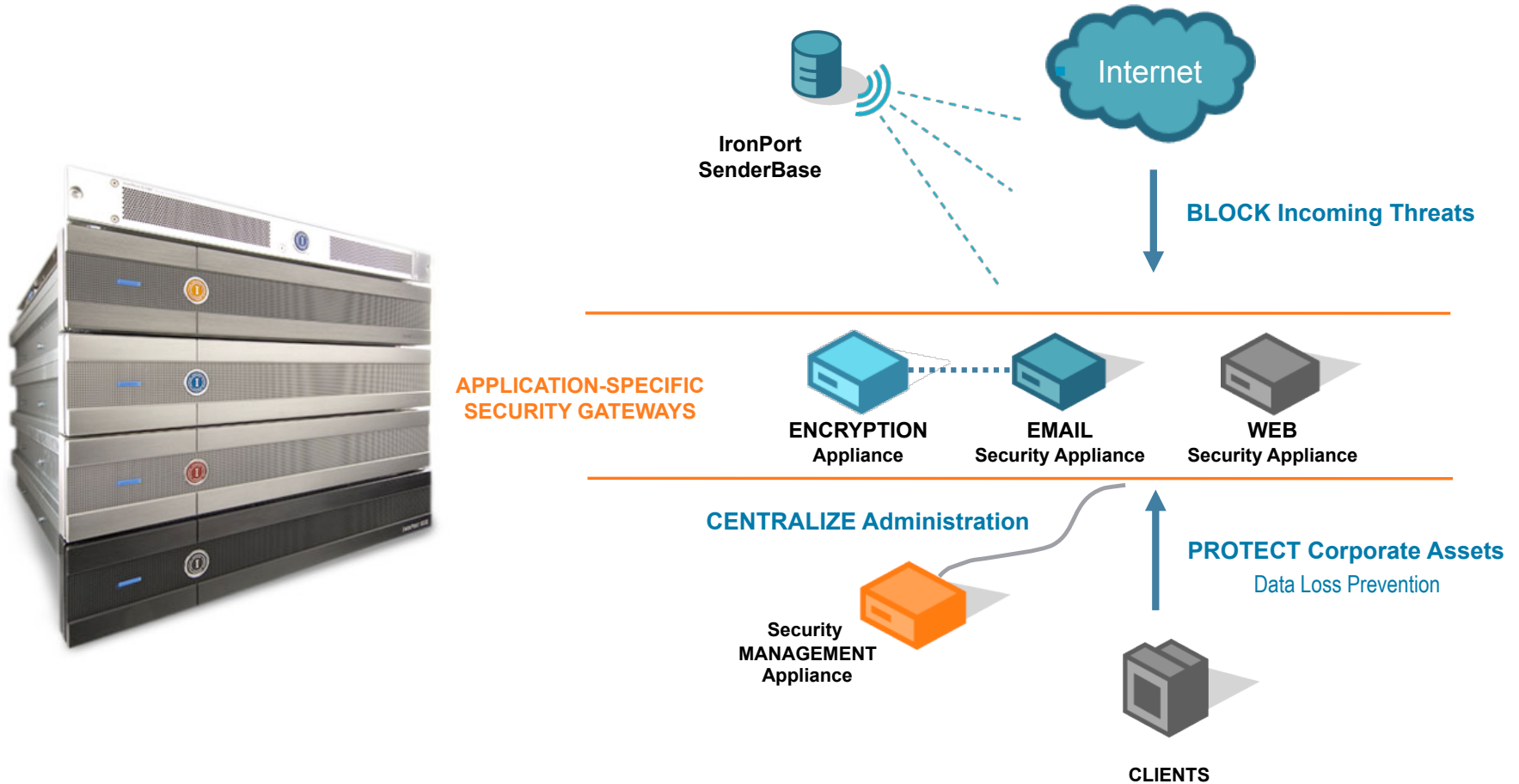
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# IronPort® Gateway Security Products



# Reactive Security



# The IronPort SenderBase® Network

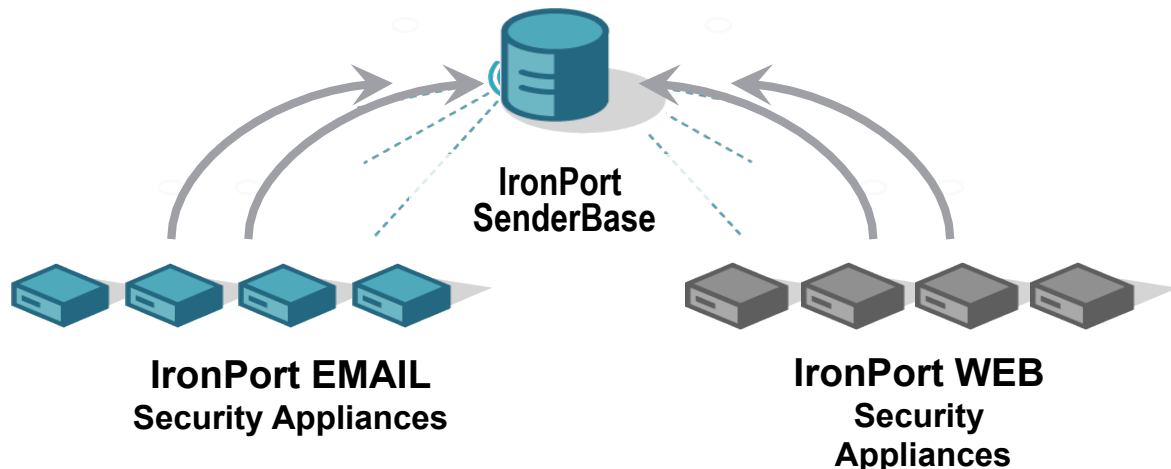
*Global Reach Yields Benchmark Accuracy*



- 30B+ queries daily
- 150+ Email and Web parameters
- 25% of the World's Traffic
- Cisco Network Devices

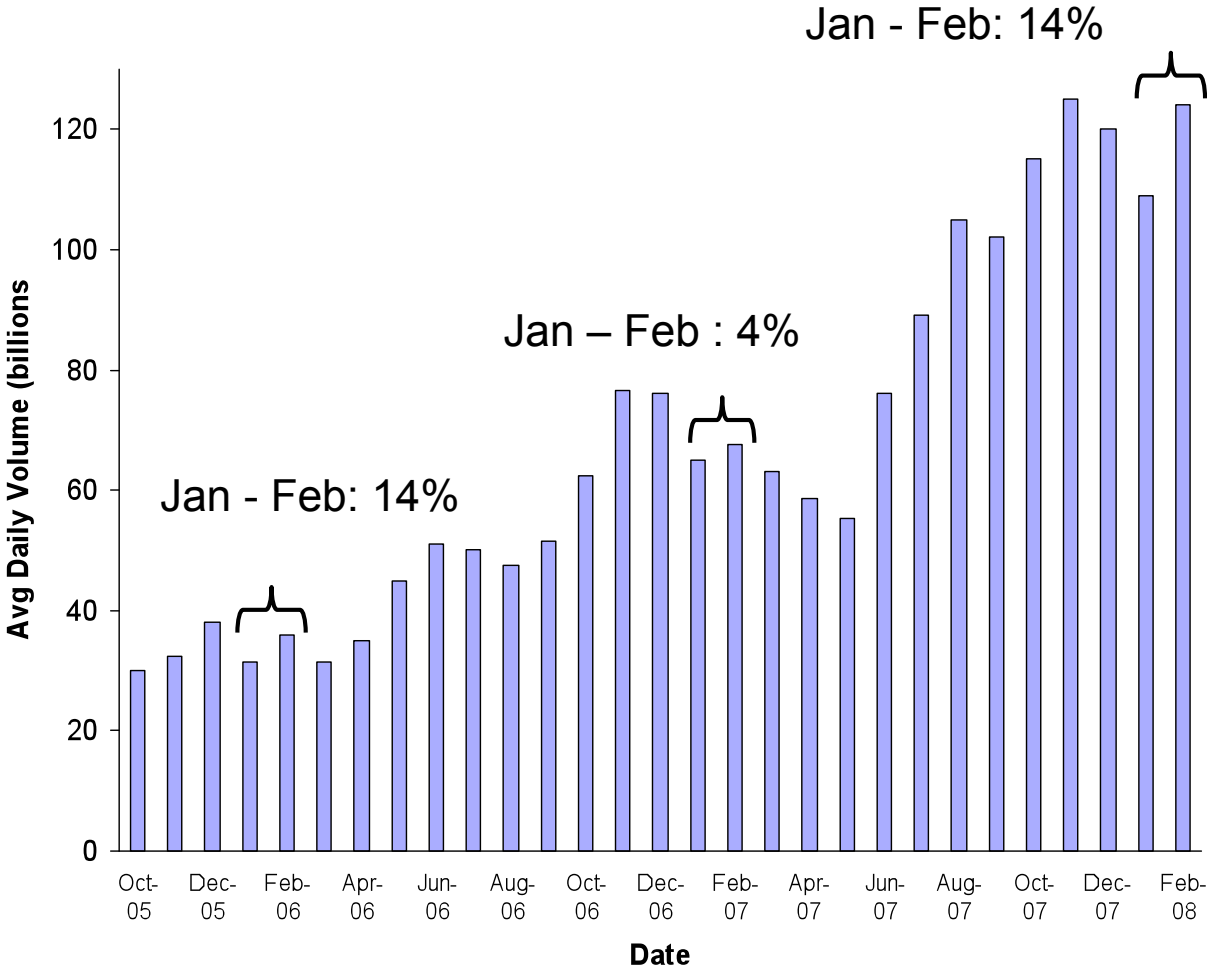
- View into **both** email & Web traffic dramatically improves detection
- 80% of spam contains URLs
- Email is a key distribution vector for Web-based malware
- Malware is a key distribution vector for Spam zombie infections

## Combines Email & Web Traffic Analysis



# Spam Volumes

Through March 2008



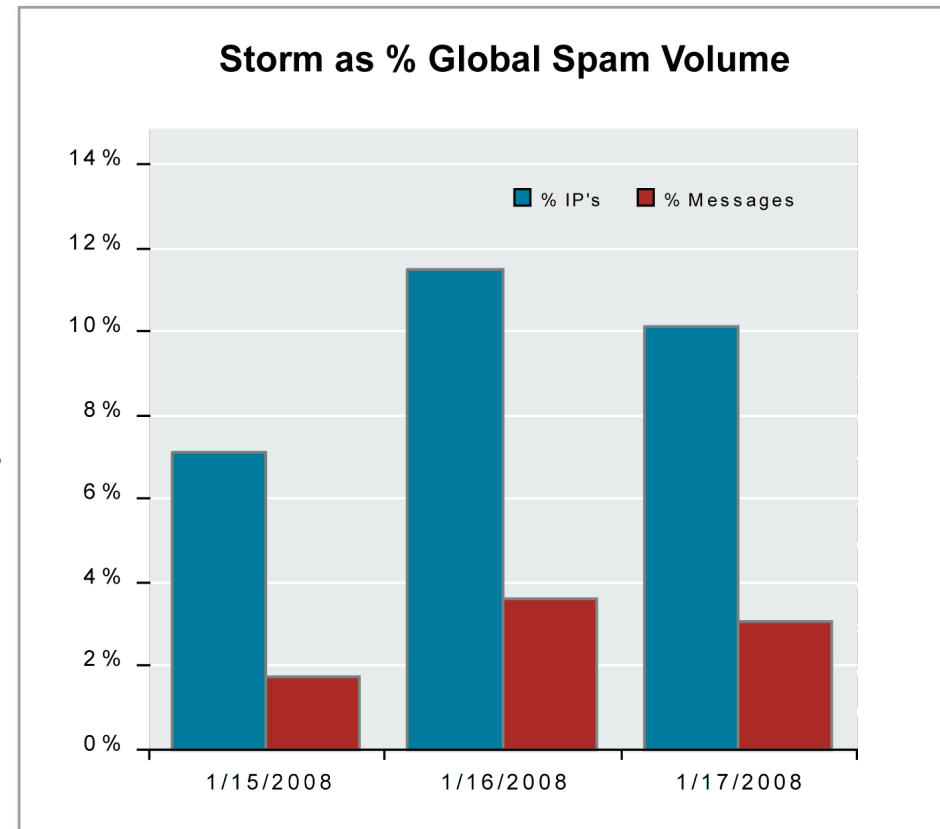
- Volumes up, consistent w/ historic trends

# Storm Spam Volumes

- Storm IPs were 9.6% of all corpus spam sources (ML 23%)
- Storm spam was 2.8% of all corpus spam
- Extrapolating to Internet:
  - Storm sent 3.1 billion msgs per day
  - Storm sent from 183,000 IP addresses per day
  - 16,940 Daily msgs per IP

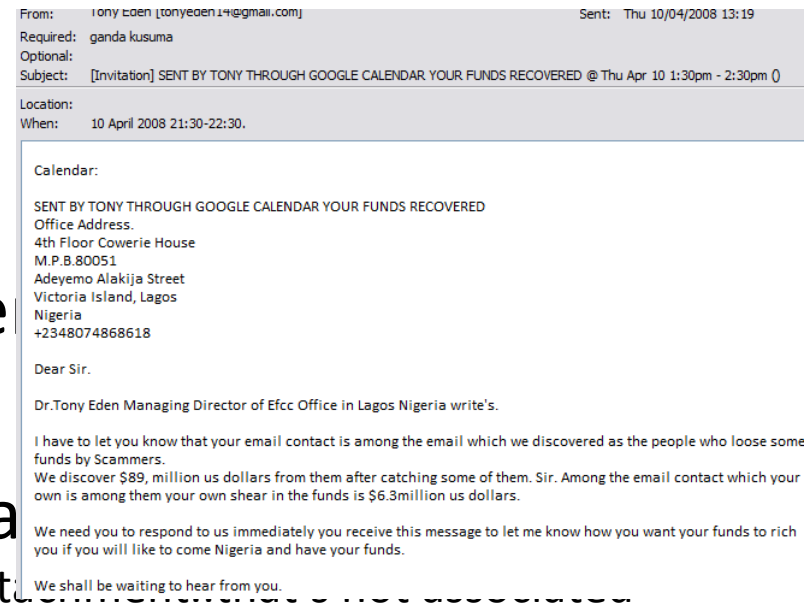
- ML quoted in March 08 report 20% of all spam from Storm

***Storm Volumes are down 80% from their July, 2007 Peak***

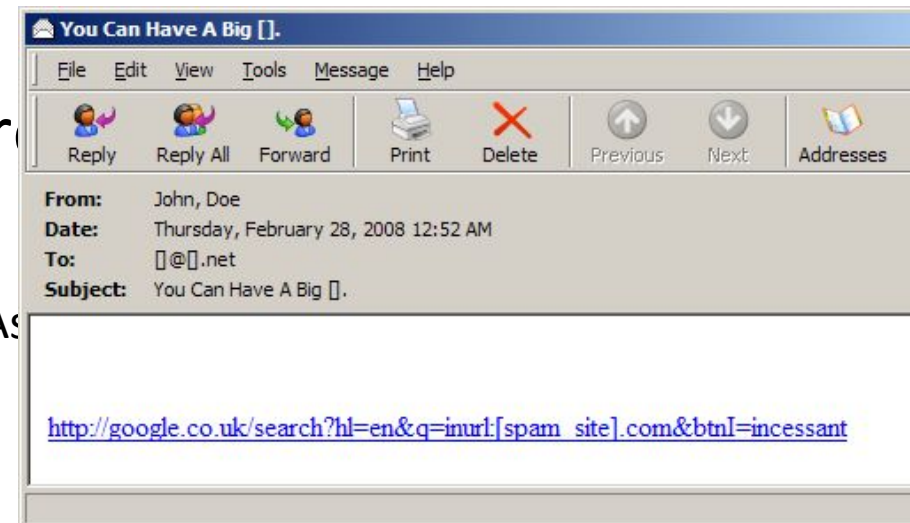


# Interesting spam trends

- Google still >3% of all spam seen
- Calendar/invite spam from gmail
  - May not be scanned in same way as it's an attachment with spam typically



- Spam URL's back using Google results
  - SURBLS will fail as a result
  - <http://www.google.com/search?q=3Dsite%3Ase%2Ecom&btn>





# CAPTCHAS

- Completely **A**utomated **P**ublic Turing test to tell **C**omputers and **H**umans **A**part
- Hotmail/Gmail/Yahoo CAPTCHAS have been broken / compromised driving spammers to sign up new accounts to send spam from

ebay	673738	799698	208471	511441	60%	\$4000	Difficult
	286903	161804	934239	910710			

ticketmaster	biloo	exsert	50%	\$6000	Difficult
	walrus	mightyp			
	duyer	fedze			

# Off the shelf software for spammers

- the average amount of time to create a Gmail account is approximately 10 minutes.
- With this software, you can create 100 accounts in under 10 minutes.
- The program is easy to use.

The screenshot displays a multi-paneled software interface. On the left, a window titled 'auto poster' shows a 'Post' button and a 'Check mail now' button. The main area features a 'Create' button and a 'Username' field containing 'jiffygmail'. Below this is another 'Create' button and a 'Proxy S' field. At the bottom, there are buttons for 'Add', 'Load List', 'Export', and 'Clear'. A central window shows a photo of a white cat on a red couch, with the text 'Asirra' and 'Image from Petfinder.com'. Below the photo is a selection tool with the text 'Please select all the cat photos:' and a grid of 12 small cat photos. A 'Score Test' button is located below the grid. On the right side of the selection tool, there are two circular icons: a refresh icon and a help icon. The text 'Asirra is a human interactive...' and 'three million photos from...' is partially visible.

# Storm update

- Social engineering
- April Fool's Day
- Info
- We
- fro
- <http://67.175.228.70/kickme.exe>

April Fool's Day - Windows Internet Explorer

http://67.175.228.70/

File Edit View Favorites Tools Help

April Fool's Day

Happy All Fools!

File Edit View Tools Message Hel

Reply Reply All Forward Print

From: &lt;prrha@elnuevoherald.com&gt;  
Date: 01 April 2008 08:45  
To: &lt;jaeson@jaeson.net&gt;  
Subject: Happy All Fools!

April Fools' Day <http://67.175.228.70/>

]

<http://67.175.228.70/kickme.exe>

Internet 100%

Your download will start in 5 seconds.  
If your download does not start,  
[click here](#) and then press "Run".

# Phishing trends

- Refresh – what is a Phish?
- \$3.2 bn lost to phishing in 2007
  - Financial sector continues to be most targetted (92%)
  - Govt (5% - think tax dept scams etc..)
  - Retails & ISP's (1.5% each)
- 18 % of all verified phishing Web sites were hosted on just three IP addresses!!
- Paypal now blocking requests from weaker browsers (user-agent tag)
- Web sites ending in “.cn” - the Top Level Domain (TLD) assigned to China
  - account for 4 of the top 5 Web sites with the most valid phishes
- One unique phishing scam is launched every two minutes
- USA still hosts >66% of systems hosting phish sites
- Cost to buy a kit \$1000 – writers scam the people whom host the site as well..

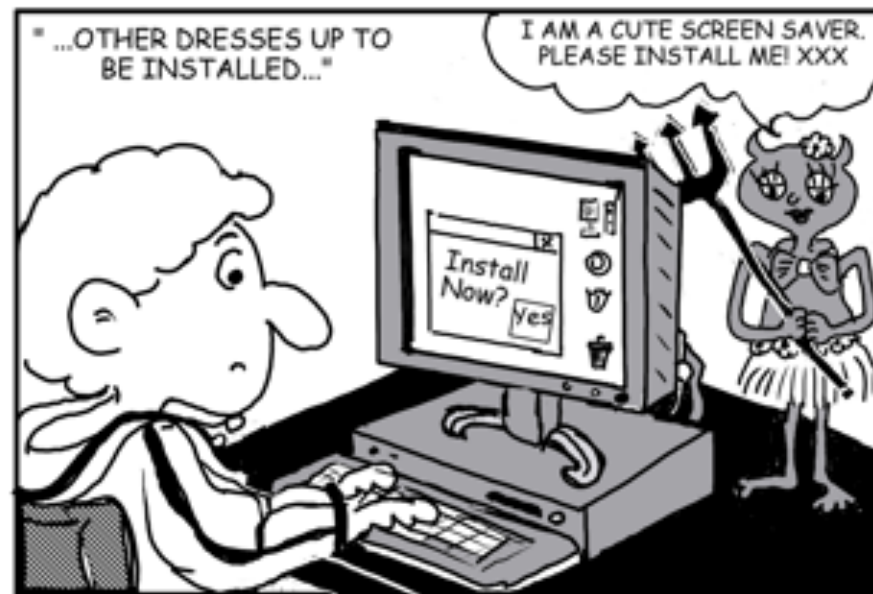
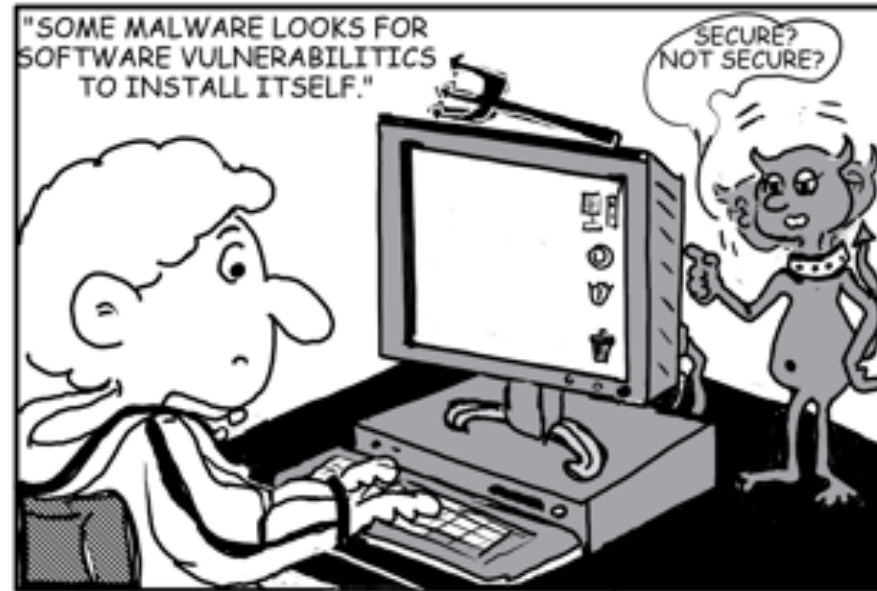


# Portable Storage



- USB, Music, Video & DVD players targets
- Plug into PC at home & work....trusted
- 'Expansion of network endpoint'
- 43% businesses have no security to address removable media
- Recent attacks
  - Digital Picture frames (San Fran Dec 2007)
  - Tom Toms (UK March 2007)
  - Media Players (infected & made in China)
- Targetting manufacturing facilities





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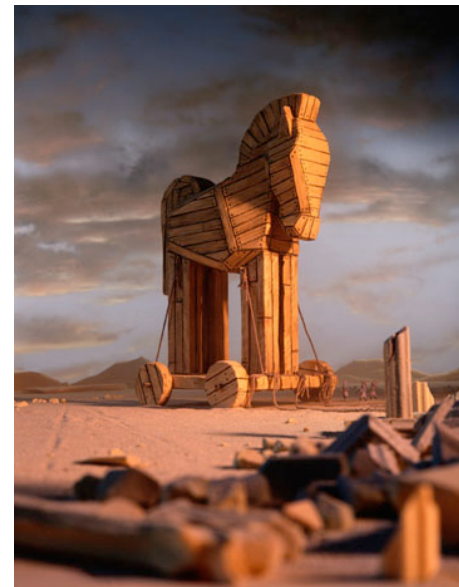
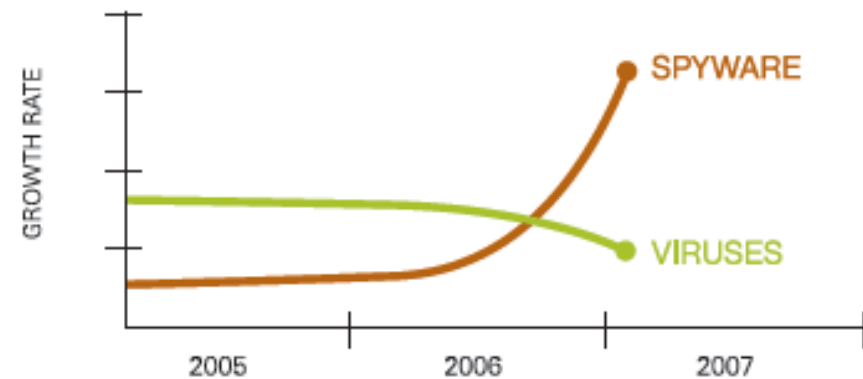


# Spyware..



# Malware is spreading

- AVtest: 5m different pieces of spyware in 2007
- Keyloggers : x20 in 5 years,
- High growth for rootkits (tools designed to hide other more malicious codes)





# Legitimate Websites Getting Hacked

- Legitimate distribution

DEMOO  
THE DEMOCRATIC CA  
YOU WOULD LIKE  
INTERESTING SPEAK  
WORKING HARD IN  
INFORMATIVE AN

CALENDAR OF EVENTS

The Official George W. B  
"Days Left In Office  
Countdown:  
389 DAYS  
5 Hrs 34 Min 47.1 Sec  
[Click Here To See](#)

Love

Your download should start automatically in a few seconds.  
If not, [click here](#) to start the download and choose either "Open" or "Run".

group. Please bookmark this  
site so you can keep an eye

Traffic (total - uniq)	
Total traff	18
Exploited	7
Loads count	
ader's response	0
Efficiency	0% - 0%

Modules state	
Statistic type	My
User blocking	
country blocking	

Loads	Efficiency
0 0%	0%
0 0%	0%
0 0%	0%

# Threat Spotlight – Search Engine Vector



- Google estimate 1.4% all searches 'dirty'
- Malicious sites boosted by "comment spam" & "blog spam"
- Users commonly select site due to high placement in search results
- Redirected to pages serving malware
  - Fake codec installation dialog or IFrame attack



# One malware site – lets look

# Xasar77.net registered on the 17<sup>th</sup> March by estdomains, hosted 10,000 malurls

Index of / - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.xasar77.net/

Google

PR: ? I: ? L: ? Cached: ? I: ? L: ? LD: ? I: ? L: ? Rank: ? Age: ? IP: ? whois source Robo: ? Density Int. links: 10 Ext. links: 0

Taste Reports - xasar... VT.bmp (image) gujrati Ka Hiren Bhai..... VirusTotal - Free Onlin... Internet Archive Way... Index of / VirusTotal - Free Onlin...

## Index of /

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
<a href="#">Parent Directory</a>	19-Mar-2008 02:17	-	
<a href="#">1/</a>	17-Mar-2008 14:14	-	
<a href="#">2/</a>	17-Mar-2008 14:14	-	
<a href="#">3/</a>	17-Mar-2008 14:14	-	
<a href="#">4/</a>	17-Mar-2008 14:14	-	
<a href="#">5/</a>	17-Mar-2008 14:14	-	

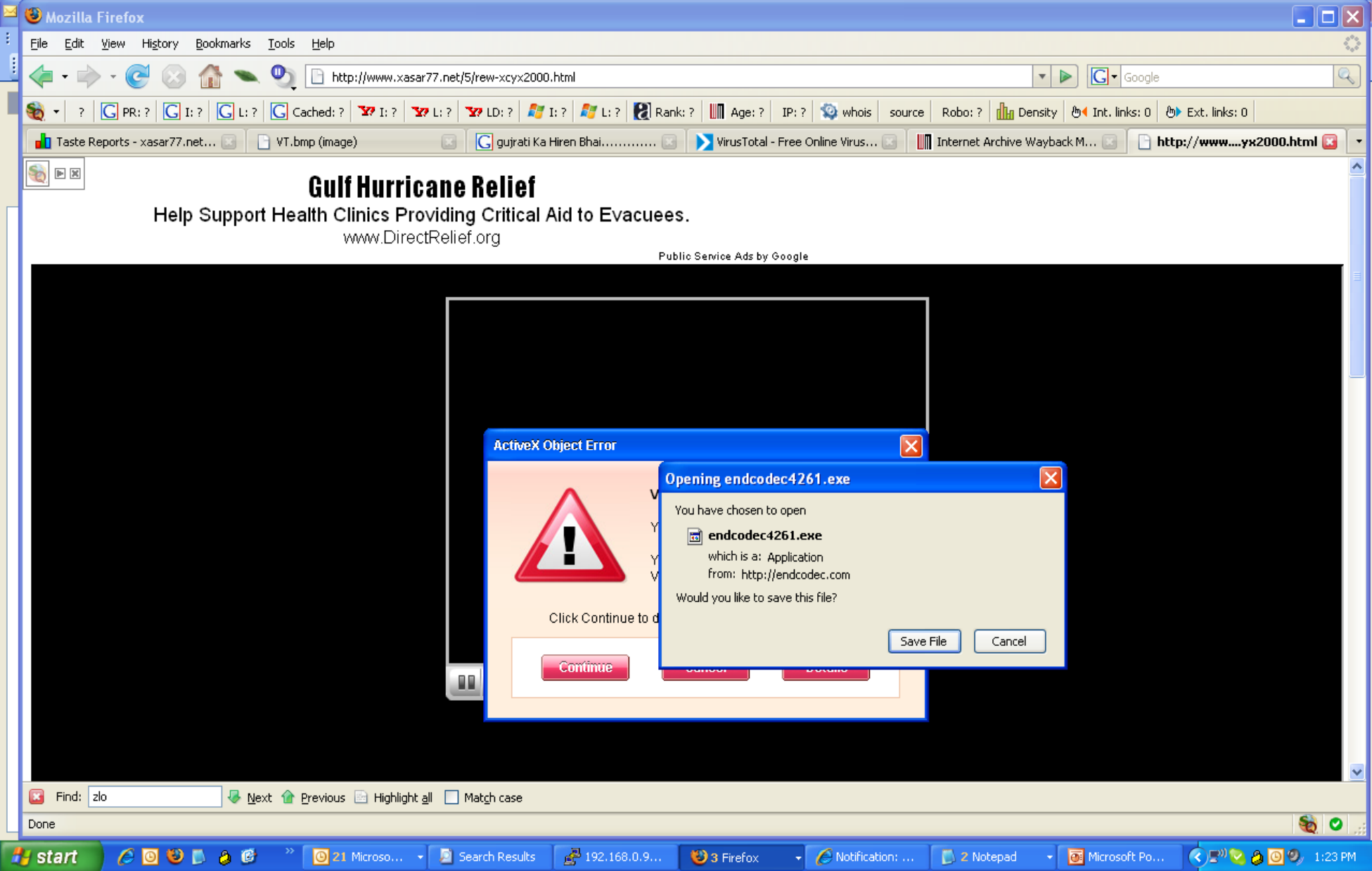
Apache/1.3.41 Server at www.xasar77.net Port 80

Find: zlo Next Previous Highlight all Match case

Done

start 21 Microsoft... Search Results 192.168.0.9... 3 Firefox http://www... 2 Notepad Microsoft Po... 1:31 PM

# The url wants to install a codec endcodec4261.exe on my laptop



# The result

File **endcodec4261.exe** received on **03.19.2008 05:29:05 (CET)**

Current status: **finished**

Result: **7/31 (22.59%)**

Antivirus	Version	Last Update	Result	Microsoft	1.3301	2008.03.19	-
AhnLab-V3	2008.3.18.1	2008.03.18	-	MOD32v2	2958	2008.03.18	-
AntiVir	7.6.0.75	2008.03.18	HEUR/Malware	Norman	5.80.02	2008.03.18	W32/Malware
Authentium	4.93.8	2008.03.19	-	Panda	9.0.0.4	2008.03.18	-
Avast	4.7.1098.0	2008.03.19	Win32:DNSChanger-SF	Prevx1	V2	2008.03.19	Generic.Dropper.xCodec
AVG	7.5.0.516	2008.03.18	-	Rising	20.36.12.00	2008.03.18	-
BitDefender	7.2	2008.03.19	-	Sophos	4.27.0	2008.03.19	-
CAT-QuickHeal	9.50	2008.03.14	-	Sunbelt	3.0.978.0	2008.03.18	-
ClamAV	0.92.1	2008.03.19	-	Symantec	10	2008.03.19	-
DrWeb	4.44.0.09170	2008.03.18	-	TheHacker	6.2.92.249	2008.03.18	-
eTrust-Vet	31.3.5625	2008.03.18	-	VBA32	3.12.6.3	2008.03.17	-
Ewido	4.0	2008.03.18	-	VirusBuster	4.3.26:9	2008.03.18	-
F-Prot	4.4.2.54	2008.03.19	-	Webwasher-Gateway	6.6.2	2008.03.18	Heuristic.Malware
F-Secure	6.70.13260.0	2008.03.18	W32/Malware	<b>Additional information</b>			
FileAdvisor	1	2008.03.19	-	File size: 235582 bytes			
Fortinet	3.14.0.0	2008.03.19	-	MD5: cb4c34e61c7572497c45098fc241dff5			
Ikarus	T3.1.1.20	2008.03.19	-	SHA1: 2f828d32c885ba71123f62df9689fe120229f798			
Kaspersky	7.0.0.125	2008.03.19	Trojan.Win32.DNSChanger.arn				
McAfee	5254	2008.03.18	-				
Microsoft	1.3301	2008.03.19	-				





Home → Feedback → TrustedSource Query Result

### TrustedSource™ Query

Enter IP address, CIDR range, domain name or URL:

### Login

Login Name

Password

→ [Forgotten your password?](#)

→ [Create Account](#)

### Feedback Home

- [Domain, URL or IP checking](#)
- [Customer URL Ticketing System](#)
- [Submit Malware Sample](#)

### Latest Malware Threats

Trojan.Autorun.aad 2008-01-08

### Information for 'www.xasar77.net'

This page shows general information on the domain xasar77.net, its message volume and the number of unique IPs sending email during the last 30 days, and IP addresses in this domain sending substantial amounts of email.

Is this your domain? Request more in depth information with our [Domain Health Check](#) !

### Web Reputation

Reputation:



Not Categorized

[Make Category Suggestions](#)

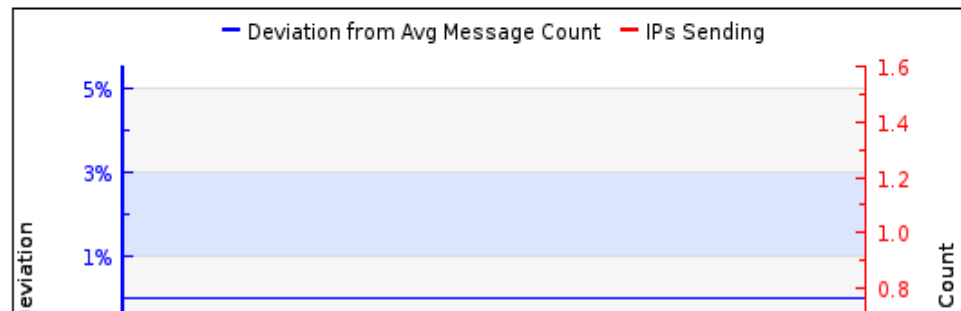
SmartFilter Category:

[ns7.imhoster.net](#)

[ns8.imhoster.net](#)

Nameservers:

### Mail Reputation



Customer Login

Leaders in Email & Internet Security

- PRODUCTS**
- Email Security
- Web Security
- Secure Web Gateway
- EndPoint Security
- Security Reporting

### Marshal Filtering List

Marshal Filtering List is a categorized database of more than 60 million websites sorted into 55 categories of related content.



**WEBMARSHAL**

**FREE 30 DAY TRIAL**  
WITH FULL FUNCTIONALITY

**DOWNLOAD NOW**

### Check Marshal Filter List Entry

**The URL <http://www.xasar77.net> was not found**

~~This URL does not exist, or is not yet categorized in our database.~~

To learn more about the categories, see Marshal Knowledge Base article [Q11606](#), "What are the URL Categories in the Marshal Filter List?"

If you disagree with this categorization or if the URL you entered has not yet been categorized, please give us your input (Use Ctrl to select more than one category)





## Test Results

[www.xasar77.net](http://www.xasar77.net) is not in our list

*If you would like to add this URL to the Control List then please click the button below.*



# McAfee SiteAdvisor™

Look up a site report:

Want to add your comments? [Log in](#) or [Register](#).

- HOME
- DOWNLOAD
- ANALYSIS**
- SUPPORT
- BLOG
- ABOUT US

No results found for **www.xasar77.net**.

If you cannot find a site in our database, you may enter a site for us to analyze in the box below.  
(You may also try another look up in the "Look up a site report" box above.)



# SENDERBASE®

## IRONPORT SECURITY NETWORK

[Blocked?](#) | [Subscribe](#) | [Contact](#)

Enter domain, network owner, IP address or CIDR range [?]

- SENDERBASE QUERIES
- THREAT OPERATIONS CENTER
- SPAMCOP
- ABOUT

- HOME
- Summary Reports
  - Current Threats
  - Spam Watch
  - Virus Watch
- Email & Web Reputation
  - Look Up
- Detailed Reports
  - Global Email Traffic
  - Spam Traffic
  - Virus Traffic
  - Threat Activity Locator

SenderBase®

### EMAIL & WEB REPUTATION LOOK UP

You are only as credible as your online reputation. Make sure your identity is not being compromised by criminal activity by checking your reputation score.

Enter IP address or Domain to look up Reputation

**Web Reputation Score: Poor**

**Actually -5**

**Country:** unknown

**Detailed Info:** xasar77.net

**LOCATION UNKNOWN**

WHOIS Information	
Registered on:	17-mar-2008
Updated on:	17-mar-2008

**FREE**

**SPYWARE**

**AUDIT.**

FREE INFO

# Future threats

- Olympics
- European championships
- Earth day
- US Presidential election (November)

# Solution???

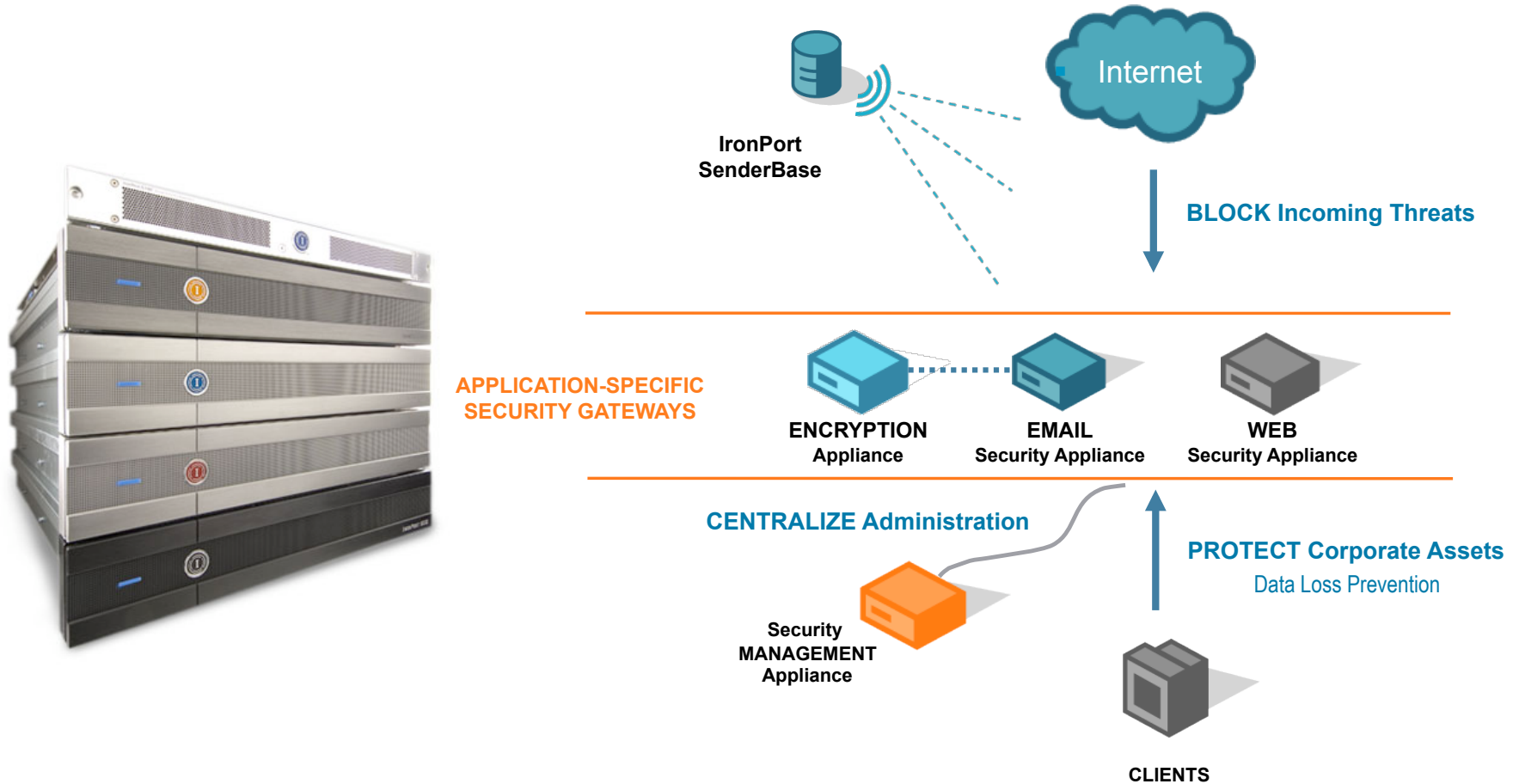


# Recommendations

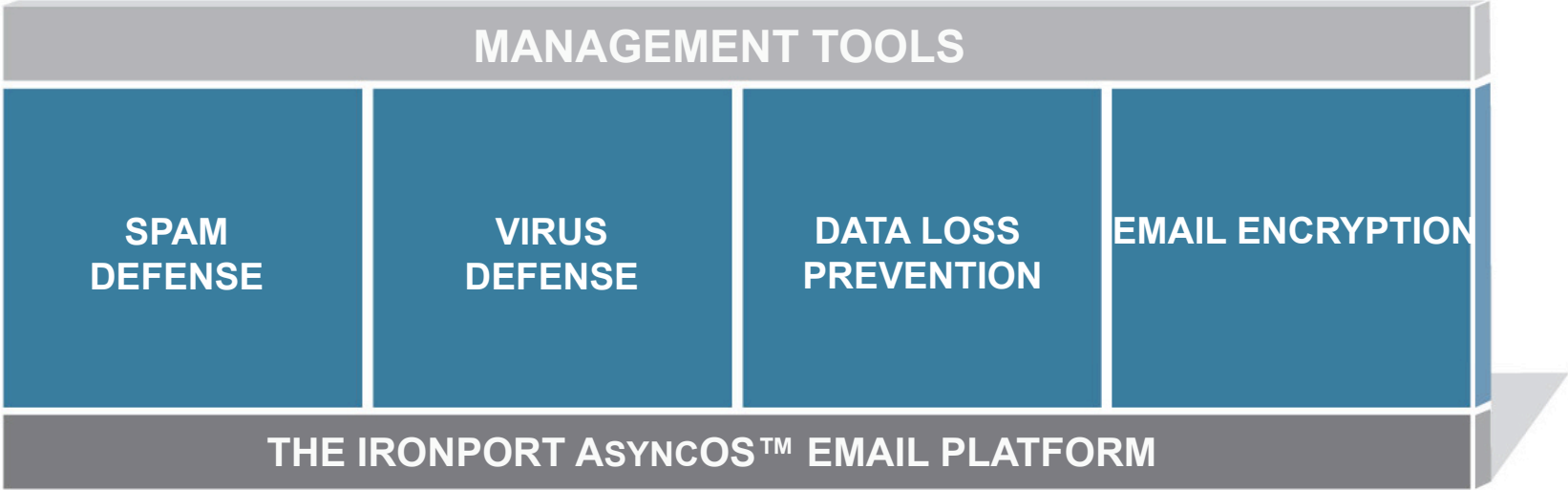
- Understand the problem holistically
- New paradigm: attack in depth
- Measure infections on your network
- Protect the HTTP vector
  - #1 source of infections
- User education to combat social engineering
- NAC



# IronPort® Gateway Security Products

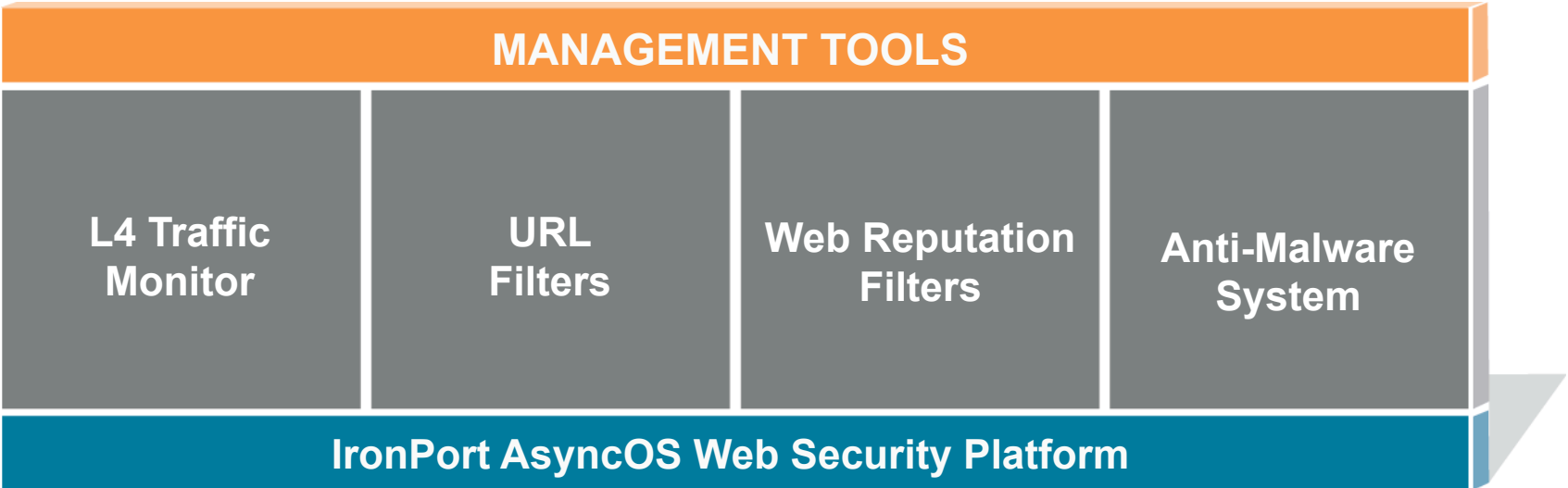


# IronPort Architecture for Multi-Layered Email Security





# IronPort Architecture for Multi-Layered Web Security



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**Thank you!**

