

What Happened Liber Primus (Post 2014)

Suggestions (good or bad) for solving the Liber are currently being housed [here](#)

A Life Sign

On May 2nd, 2014 at around 10:00 GMT, 3301 sent out messages to all of the hidden services previously registered on Onion 6. The requests made on the hidden services looked like this:

```
127.0.0.1 - - [02/May/2014:10:**:** +0200] "GET /key.asc HTTP/1.1" 200 * "-"
"Cicada/33.01 Cicados 1.033 E Edition"PP
127.0.0.1 - - [02/May/2014:10:**:** +0200] "GET / HTTP/1.1" 200 * "-"
"Cicada/33.01 Cicados 1.033 E Edition"
127.0.0.1 - - [02/May/2014:11:**:** +0200] "POST /cgi-bin/upload HTTP/1.1" 200 *
 "-" "Cicada/33.01 Cic/DOS/ 1.033 S Edition"
```

They requested the public key and the root before uploading a file named message.txt.asc to the hidden service. The file contained a valid signature and a link to a new onion (ky2khlqdf7qdznac.onion). As it appears, the emails sent to different people were identical.

Content of message.txt.asc: <http://pastebin.com/x4Bm1v6h>

The message:

-----BEGIN PGP SIGNED MESSAGE-----

Hash: SHA1

Hello. Your enlightenment awaits you.

ky2khlqdf7qdznac.onion

We look forward to hearing from you.

Good luck.

3301

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.4.11 (GNU/Linux)

iQIcBAEBAgAGBQJTO88vAAoJEBgfAeV6NQkPEfsQAIOjGcmBaQr2AGGr1/ic839I
fc58EyVNLgWs6Aox0/Dc2Tj8dXOxc0sBNWY98tICly2T0Vbpf1VF65nFs+cVcxXI

pXIU5X0O3XKRfxequIZQQUnt4eLIIfAIGrXbE9N7K5qkD47xg4kaYkPQh7/mDBa
NBVHsLkw8bbLUo7IBtv5VFHTeTikSnT3m7FsoSH15WlsY9WvITO5VcYd48jFbBSS
P9Uk7v7cg1ohWpDB0BiYUTfOVxXYuZpnFiR6vAADP5KkY/qrFF7wrpYbhSmageId
Qcxyc/dajUTlwK7dl+OwAJn4XRPceBPMjW9SbCr33y1C3ijCuxn06penu0KnUyge
yYjyedXg11UPb/B6eT+hwAOPg/DLDTQ57QOQIGOX19IB56iZbHKuglQZUZ5k1Jq54
dTobWhi6FBtwu+QLnJCz2SASLCuKDIWFkwSoYro/F9Zlo7b0UUO2IOkcKw7tKzq9
uyPtBDQayCSIIHJhVjAtNiVFjNe+TcBf1VppAGY/7jfUfwxJ7Sfbv5Jwl1+6MDYr
YdsnJBZjhLuoxFyr9g4TF00TXmxT+TyAZ4qoItu4C0bcEncBcfLJz+J74X1upsZl
DMq7On1paQAkXvzr6ywDBpMJbDZETkl9gZbzHn1Ji+9f3fANrqU+5kZ1su2OReQf
++CO13gAUf4WohKip4mC
=VAo/
-----END PGP SIGNATURE-----

The GET request was made by Cicados 'E Edition' and the POST by 'S Edition', E and S are the 5th and 19th letters in the alphabet, with S being 7th letter from the end of the alphabet ie 5 and 7.

The message.asc.txt file is malformed with non-visible ascii spaces in the message that provide a hint in the form of the prime number sequence with the digit 19 missing.

Linked below is a screenshot of the message.asc.txt file so you can see how the numbers are encoded:

<http://imgur.com/wayVO26>

00000000	2D	2D	2D	2D	2D	42	45	47	49	4E	20	50	47	50	20	53	49	47	4E	45	44	20	4D	45	53	-----BEGIN PGP SIGNED MES
00000019	53	41	47	45	2D	2D	2D	2D	2D	0A	48	61	73	68	3A	20	53	48	41	31	0A	0A	48	65	6C	SAGE-----Hash: SHA1..Hel
00000032	6C	6F	2E	20	20	59	6F	75	72	20	65	6E	6C	69	67	68	74	65	6E	6D	65	6E	74	20	61	lo. Your enlightenment a
0000004b	77	61	69	74	73	20	79	6F	75	2E	20	20	0A	20	20	20	0A	20	20	20	20	20	6B	79	32	waits you. . . . ky2
00000064	6B	68	6C	71	64	66	37	71	64	7A	6E	61	63	2E	6F	6E	69	6F	6E	20	20	20	20	20	20	kh1qdf7qdznac.onion
0000007d	20	0A	20	20	20	20	20	20	20	20	20	20	20	0A	57	65	20	6C	6F	6F	6B	20	66	6F	72We look for
00000096	77	61	72	64	20	74	6F	20	68	65	61	72	69	6E	67	20	66	72	6F	6D	20	79	6F	75	2E	ward to hearing from you.
000000af	0A	20	20	20	20	20	20	20	20	20	20	20	20	0A	20	20	20	20	20	20	20	20	20	20	20
000000c8	20	20	20	20	20	20	20	0A	47	6F	6F	64	20	6C	75	63	6B	2E	20	20	20	20	20	20	20	. Good luck.
000000e1	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
000000fa	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0A	33	33	30	. 330
00000113	31	0A	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	1.
0000012c	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
00000145	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0A	2D	2D	2D
0000015e	2D	2D	42	45	47	49	4E	20	50	47	50	20	53	49	47	4E	41	54	55	52	45	2D	2D	2D	2D	--BEGIN PGP SIGNATURE----
00000177	2D	0A	56	65	72	73	69	6F	6E	3A	20	47	6E	75	50	47	20	76	31	2E	34	2E	31	31	20	-.Version: GnuPG v1.4.11
00000190	28	47	4E	55	2F	4C	69	6E	75	78	29	0A	0A	69	51	49	63	42	41	45	42	41	67	41	47	(GNU/Linux) . . iQIcBAEBAG
000001a9	42	51	4A	54	4F	38	38	76	41	41	6F	4A	45	42	67	66	41	65	56	36	4E	51	6B	50	45	BQJTO88vAAoJEBgfAeV6NqkPE
000001c2	66	73	51	41	49	30	6A	47	63	6D	42	61	51	72	32	41	47	47	72	31	2F	69	63	38	33	fsQAIOjGcmBaQr2AGGr1/ic83
000001db	39	49	0A	66	63	35	38	45	79	56	4E	4C	67	57	73	36	41	6F	78	30	2F	44	63	32	54	9I.fc58Ey/VNLgWs6Aox0/Dc2T
000001f4	6A	38	64	58	4F	78	63	30	73	42	4E	57	59	39	38	74	49	43	49	79	32	54	30	56	62	j8dXOxc0sBNWY98tICiY2T0Vb
0000020d	70	66	31	56	46	36	35	6E	46	73	2B	63	56	63	78	58	49	0A	70	58	49	55	35	58	30	pf1VF65nFs+cVcxXI.pXIU5X0
00000226	4F	33	58	4B	52	66	78	65	71	75	49	5A	51	51	55	6E	74	34	65	6C	4C	49	66	46	41	O3XKRfxequIZQQUnt4eLIIfA
0000023f	49	67	72	58	62	45	39	4E	37	4B	35	71	6B	44	34	37	78	67	34	6B	61	59	6B	50	51	IgrXbE9N7K5qkD47xg4kaYkPQ
00000258	68	37	2F	6D	44	42	61	0A	4E	42	56	48	73	4C	6B	77	38	62	62	4C	55	6F	37	6C	42	h7/mDBa.NBVHsLkw8bbLUo71B
00000271	74	76	35	56	46	48	54	65	54	69	6B	53	6E	54	33	6D	37	46	73	6F	53	48	6C	35	57	tv5VFHTeTikSnT3m7FsoSH15W
0000028a	6C	73	59	39	57	76	49	54	4F	35	56	63	59	64	34	38	6A	46	62	42	53	53	0A	50	39	lsY9WvITO5VcYd48jFbBSS.P9

In July 2015, a similar sequence of spaces was found within the PGP signed pastebin message that was published from the Cicada twitter account (<https://twitter.com/1231507051321>). This sequence can be seen here:

<http://imgur.com/XtM8Yk9>

```

00000000 2D 2D 2D 2D 2D 42 45 47 49 4E 20 50 47 50 20 53 49 47 4E 45 44 20 4D 45 53 -----BEGIN PGP SIGNED MES
00000019 53 41 47 45 2D 2D 2D 2D 2D 0D 0A 48 61 73 68 3A 20 53 48 41 31 0D 0A 0D 0A SAGE-----..Hash: SHA1....
00000032 20 20 20 20 20 0D 0A 53 6F 6D 65 20 6E 65 77 73 20 6F 72 67 61 6E 69 73 61 ..Some news organisa
0000004b 74 69 6F 6E 73 20 68 61 76 65 20 72 65 63 65 6E 74 6C 79 20 63 6C 61 69 6D tions have recently claim
00000064 65 64 20 74 68 61 74 20 22 33 33 30 31 22 20 69 73 0D 0A 74 69 65 64 20 74 ed that "3301" is..tied t
0000007d 6F 20 74 68 65 20 69 6C 6C 65 67 61 6C 20 61 63 74 69 76 69 74 69 65 73 20 o the illegal activities
00000096 6F 66 20 61 20 67 72 6F 75 70 20 74 68 61 74 20 68 61 73 20 63 6C 61 69 6D of a group that has claim
000000af 65 64 0D 0A 72 65 73 70 6F 6E 73 69 62 69 6C 69 74 79 20 66 6F 72 20 61 74 ed..responsibility for at
000000c8 74 61 63 6B 73 20 61 67 61 69 6E 73 74 20 50 6C 61 6E 6E 65 64 20 50 61 72 tacks against Planned Par
000000e1 65 6E 74 68 6F 6F 64 2E 0D 0A 20 20 20 0D 0A 57 65 20 64 6F 20 6E 6F 74 20 enthood... ..We do not
000000fa 65 6E 67 61 67 65 20 69 6E 20 69 6C 6C 65 67 61 6C 20 61 63 74 69 76 69 74 engage in illegal activit
00000113 69 65 73 2E 20 20 57 65 20 61 72 65 20 6E 6F 74 20 61 73 73 6F 63 69 61 74 ies. We are not associat
0000012c 65 64 20 0D 0A 77 69 74 68 20 74 68 69 73 20 67 72 6F 75 70 20 69 6E 20 61 ed ..with this group in a
00000145 6E 79 20 77 61 79 2C 20 6E 6F 72 20 64 6F 20 63 6F 6E 64 6F 6E 65 20 74 68 ny way, nor do condone th
0000015e 65 69 72 20 75 73 65 20 6F 66 20 6F 75 72 0D 0A 6E 61 6D 65 2C 20 6E 75 6D eir use of our..name, num
00000177 62 65 72 2C 20 6F 72 20 73 79 6D 62 6F 6C 69 73 6D 2E 0D 0A 20 20 0D 0A 33 ber, or symbolism... ..3
00000190 33 30 31 0D 0A 20 20 20 20 20 0D 0A 20 20 20 20 20 20 0D 0A 2D 2D 2D 2D 301.. ..-----
000001a9 2D 42 45 47 49 4E 20 50 47 50 20 53 49 47 4E 41 54 55 52 45 2D 2D 2D 2D 2D -BEGIN PGP SIGNATURE-----
000001c2 0D 0A 56 65 72 73 69 6F 6E 3A 20 47 6E 75 50 47 20 76 31 0D 0A 0D 0A 69 51 ..Version: GnuPG v1....iQ
000001db 49 63 42 41 45 42 41 67 41 47 42 51 4A 56 74 77 39 48 41 41 6F 4A 45 42 67 IcBAEBAgAGBQJVtW9HAAoJEBg
000001f4 66 41 65 56 36 4E 51 6B 50 49 50 30 50 2F 33 4A 43 49 58 65 4A 77 4D 45 52 fAeV6NQkPIPOP/3JCIXeJwMER
0000020d 51 32 4F 66 7A 64 75 6F 68 33 4A 6F 0D 0A 4C 6C 32 37 58 6F 59 57 51 35 51 Q2Ofzduoh3Jo..Ll27XoYWQ5Q
00000226 32 4F 46 4C 2F 48 43 6E 34 66 56 52 33 71 66 35 62 43 68 38 49 6C 61 70 2OFL//HCn4fVR3qf5bCh8Ilap
0000023f 65 57 33 76 71 32 64 4C 54 49 50 4D 6C 48 66 2F 46 50 55 4C 39 6F 53 57 6F ew3vq2dLTIPM1Hf/FPUL9oSWo
00000258 58 4E 32 0D 0A 33 46 39 34 50 57 6E 47 4E 31 47 6C 43 76 55 6C 4E 46 73 55 XN2..3F94PWnGN1G1CvU1NFsU
00000271 78 49 78 50 77 52 2B 62 50 32 62 7A 72 37 64 4F 5A 72 79 2F 61 57 72 56 34 xIxPwR+bP2bZr7dOZry/aWrv4
0000028a 52 63 68 6A 59 45 32 36 78 73 5A 70 2B 56 63 35 77 37 54 0D 0A 57 41 54 36 RchjYE26xsZp+Vc5w7T..WAT6

```

Further discussion on the possible significance of these spaces can be found here:

[Cicada Breaks the Silence: 2015 Twitter Message](#)

Onion 7 - ky2khlqdf7qdzna.onion

The onion from the message was running a thttpd server, version 2.25b. It was modified on April 2nd 08:33:19 GMT, meaning it took 3301 one month to set the website up and they let us wait another month before finally uploading a message.

Header:

```

Server: thttpd/2.25b 29dec2003
Last-Modified: Wed, 02 Apr 2014 08:33:19 GMT
Date: Fri, 02 May 2014 11:32:45 GMT
Content-Type: text/html; charset=iso-8859-1
Connection: close
Accept-Ranges: bytes

```

Requesting a non existent file resulted in a 404 page giving the port used by the server:

```
Apache Server at 127.0.0.1 Port 5243
```

Trying to connect to the server with telnet resulted in the following error:

```

UNKNOWN 400 BaO'[d Request
Server: thttpd/2.25b 29dec2003
Content-Type: text/html; charset=iso-8859-1
Date: Fri, 02 May 2014 11:46:39 GMT
Last-Modified: Fri, 02 May 2014 11:46:39 GMT
Accept-Ranges: bytes
Connection: close
Cache-Control: no-cache,no-store

```

```
<HTML>
  <HEAD><TITLE>400 Bad Request</TITLE></HEAD>
```

```
<BODY BGCOLOR="#cc9999" TEXT="#000000" LINK="#2020ff" VLINK="#4040cc">
```

```
  < H2>400 Bad Request< /H2>
    Your request has bad syntax or is inherently impossible to
satisfy.
  < HR>
    <ADDRESS><A HREF="http://www.acme.com/software/tthttpd/">tthttpd/2.25b
29dec2003</A></ADDRESS>
```

```
</BODY>
```

```
</HTML>
```

Source code:

```
< html >
< head >< title >133</ title ></ head >
< body >
< div id="331" >
< img src="0.jpg" />< br />
< img src="1.jpg" />< br />
< img src="2.jpg" />< br />
< img src="3.jpg" />< br />
< img src="4.jpg" />< br />
< img src="5.jpg" />< br />
< img src="6.jpg" />< br />
< img src="7.jpg" />< br />
< img src="8.jpg" />< br />
< img src="9.jpg" />< br />
< img src="10.jpg" />< br />
< img src="11.jpg" />< br />
< img src="12.jpg" />< br />
< img src="13.jpg" />< br />
< img src="14.jpg" />< br />
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< img src="16.jpg" />< br />
< img src="17.jpg" />< br />
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< img src="29.jpg" />< br />
< img src="30.jpg" />< br />
< img src="31.jpg" />< br />
< img src="32.jpg" />< br />
< img src="33.jpg" />< br />
< img src="34.jpg" />< br />
```

```
< img src="35.jpg" />< br />
< img src="36.jpg" />< br />
< img src="37.jpg" />< br />
< img src="38.jpg" />< br />
< img src="39.jpg" />< br />
< img src="40.jpg" />< br />
< img src="41.jpg" />< br />
< img src="42.jpg" />< br />
< img src="43.jpg" />< br />
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< img src="51.jpg" />< br />
< img src="52.jpg" />< br />
< img src="53.jpg" />< br />
< img src="54.jpg" />< br />
< img src="55.jpg" />< br />
< img src="56.jpg" />< br />
< img src="57.jpg" />< br />
</ div >
</ body >
</ html >
```

The onion contained 58 pages, numbered 0.jpg to 57.jpg, all written in runes and apparently part of the Liber Primus: <http://imgur.com/a/8xnWx#0>

Note: the liber primus is in separate file

Rune Pages, HTML File and message.txt.asc

A drop box of all unmodified files is available here:

<http://tinyurl.com/2014onion7>.

https://github.com/rtdk/iddqd/tree/master/liber-primus_images--unsolved

<https://github.com/micheloosterhof/cicada-2014/tree/master/stage11/ky2khlqdf7qdzna.onion>

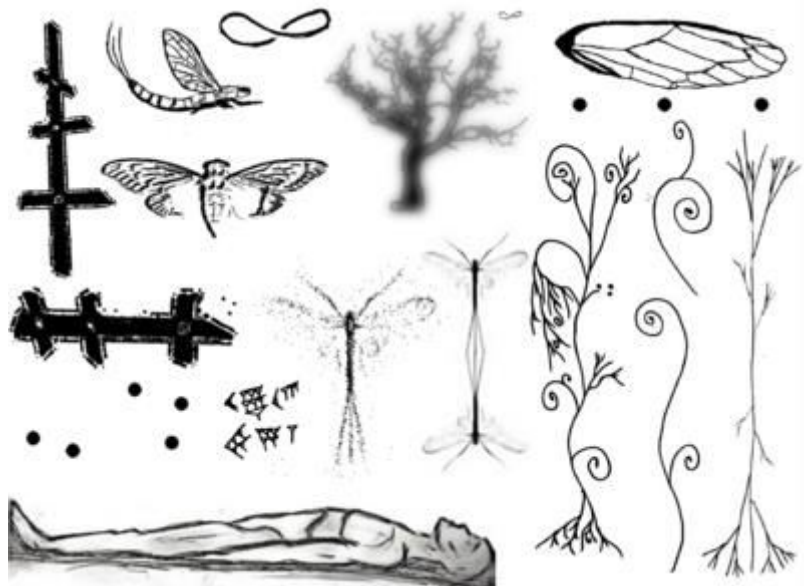
Imgur gallery: <https://imgur.com/a/8xnWx#0>

Transcription of all pages (including previous solved pages): https://github.com/rtdk/iddqd/blob/master/liber-primus_transcription--full/liber-primus_transcription--full

Transcription in latin letters (might contain errors): <https://titanpad.com/vFCy7T5p0O>

Rune Page Sets

The rune pages appear to be in sets of various length as defined by decorations in their margins and a discussion on their meanings can be found here: <http://archive.4plebs.org/x/thread/14547165/>



Several of these symbols are repeated on pages of the Liber Primus received earlier but are reversed (ie the cicada emerging and the reclining man). Some symbols repeat across the page sets and are also similarly transformed by rotation or mirroring (ie the 5 dots and infinity or mobius symbol):

34.jpg to 39.jpg - cuneiform numbers, the Babylonians, sexagesimal numeral system, possible hint to base 60

7.jpg, 23.jpg and 56.jpg - 5 dots in various transformations

24.jpg to 26.jpg, 57.jpg, 14.jpg - Mayflies, Ephemerae, possible hint to ephemeral cipher

8.jpg to 14.jpg, 32.jpg and 55.jpg - Dendrites in various forms, inverted

It is likely the decorations provide an indication of how to decode the pages within a set or provide a path through the different page sets. This hypothesis is reinforced by adjusting colour levels on the images to reveal what appears to be further information:

<http://imgur.com/a/u2Ir4#0>

Transcription of Runes

The runes, in text format, can be found [here](#)

A **numerical transcript** is available here: <https://raw.githubusercontent.com/remlong/cicada-runes/gh-pages/runes.txt> . The runes were numbered 0-28. Each page is on a new line and all spaces and symbols are underscores.

Note: those exists in a separate file

There are some scripts to decrypt runes based in some rules:

runes.py <http://git.io/xQrlUg>

runescript.py <http://pastebin.com/zXMgSFLM> (which is based in runes.py)

Transcription was once in progress and can be found [here](#).

Decryption of page 57 and 58

Page 56

Page 56 was decrypted using a running stream of the Totient function, and a modulo of 29, both things used repeatedly by Cicada so far. For practical purposes, the totient function of a prime is that prime -1. This means to decrypt this page, shift the runes with a stream of (prime numbers, modulo 29) -1 ie 1,2,4,6,10,12,16,18,22,28,1,7,11,13.....Modulo 29 is used because there are 29 runes in the gematria so you only need the remainder of (Prime-1)/29 to determine and simplify the shift.

[Python script](#)

Page 56 decodes to:

```
AN END: WITHIN THE DEEP WEB TH  
ERE EXISTS A PAGE THAT HA  
SHES TO:  
  
36367763ab73783c7af284446c  
59466b4cd653239a311cb7116  
d4618dee09a8425893dc7500b  
464fdaf1672d7bef5e891c6e227  
4568926a49fb4f45132c2a8b4  
  
IT IS THE DUTY OF EUERY PILGR  
IM TO SEEK OUT THIS PAGE.
```

This could be interpreted as the hash of an onion page, however it should be noted that hashes can be used as unique file identifiers for deep web applications such as Freenet, Gnnunet or P2P file sharing systems.

Possibly an Important Note: On Page 56, the 57th rune (if counting from 1; 56th if counting from 0), an "F" rune, is skipped over. It is the fourth of five "F" runes on the page and the only one that is not encrypted. If you do not skip it, the prime number 269 would be used (269 Mod 29)-1 = 7. This would result in "OE" instead of "F" and garbled text for the rest of the message. So 269 is not used here, and instead the next rune is shifted using prime number 269.

Page 57

Page 57 is not encrypted and can be decoded directly from the Gematria Primus:

Parable : like the instar tunneling to the surface.

We must shed our own circumferences. Find the
divinity within and emerge.

This is Parable 1,595,277,641 which [appeared in 2013](#) within the ID tag of 761.mp3. The mp3 title is 'The Instar Emergence' which can be summed using the Gematria Primus to obtain '761'. The number 1,595,277,641 is similarly obtained using the product of the gematria sums of each line of the parable ie $1259 * 1031 * 1229 = 1,595,277,641$.

Page 49, 50, 51

These pages contain the following ASCII text:

```
3N 3p 2l 36 1b 3v 26 33 1W 49 2a 3g 47 04 33 3W 2l 3M 0F 0X 1g 2H 0x 1R 1n 3I 2r
0P 2U 16 2L 2D 1t 1s 3H 0d 0s 1K 2D 05 1K 1O 0S 1D 3o 1l 3J 1G 4D 0G 0l 0x 1Q 2p
2a 1K 4E 1w 2Q 19 1k 3G 24 0p 22 4F 0P 3C 3J 1D 2n 1m 2i 1J 3P 2v 1s 2O 0k 1M 2M
0w 3L 3D 2r 0S 1p 15 3V 3e 3I 0n 3u 1O 0u 0Z 3g 2U 1C 0Y 1N 3n 0W 3Q 22 13 0V 3c
0E 34 0W 1t 1D 2N 3H 47 0s 2p 0Z 34 0g 3v 1Q 0s 0D 0K 2h 3D 3L 2x 1Q 20 2n 2L 1C
2p 0A 29 3r 0D 45 0k 2e 2W 25 3U 1W 2r 46 2s 2X 39 3p 0X 0E 1q 0q 4B 49 48 3r 3b
3C 1M 1j 0I 4A 48 40 3m 4E 0s 2S 1v 3T 0I 3t 2B 2k 2t 2O 0e 2l 1L 28 2a 0J 1L 0c
3C 2o 0X 00 2Z 2d 1T 2u 1t 1j 0l 1o 1E 3T 18 3E 1G 27 0L 0v 2t 06 1l 1A 2U 4B 1O
2M 3d 2S 0x 0w 0q 0p 2V 18 0q 1D 49 2O 00 1v 2t 1k 3s 3G 2l 3w 0W 29 2r 2O 2L 0g
3Y 0M 0u 3I 3C 1r 2c 2q 3o 30 0a 39 1K
```

The first digit is always '0', '1', '2' or '3'. The last letter falls within '[0-9A-Za-x]', exactly 60 values. The maximum value is '4F'. This suggests a sexagesimal (base 60) counting system, where '4F' would correspond to '255'. The text can be rewritten in hexadecimal as follows:

```
CBE7A7BA61ED7EB75CF99CDEF704B7D479CA0F2166893B576DC6AD1996428D857372C527365085055
0541C49E66BC74CFD102F3B56AB9C50FE7692456AC47C337AFF19C0C749A96CA44FCDB172902E528E
3AC9C1AD1C6F41D3DCC631EC543823DE96482253E520CE7A3F1FDA0EB82073498FC5F736AB23B82AE
D56360D14A3C1C9B35678A98D48AB0A81E90DF52EA0987DD25CADF6AE99BDE7210E7034FBF9F8E9D9
C0526912FAF8F0E4FE369475D112EB83A6AF9028A751809C135126C0AA21009B9F59B073692F6E4AD
144C24C7F1539AF063D4696FB548EDB943B3A343397443449F9900075AF6AEAC479EE2081AD908D2A
D61638C6C0719EACE6B424BD50
```

The above does ignore the fact that there is also no 'f' letter in the text. Means that it could also be in base 59.

Page 49

Page 49 contains:

```
3N 3p 2l 36 1b 3v 26 33
1W 49 2a 3g 47 04 33 3W
2l 3M 0F 0X 1g 2H 0x 1R
1n 3I 2r 0P 2U 16 2L 2D
1t 1s 3H 0d 0s 1K 2D 05
1K 1O 0S 1D 3o 1l 3J 1G
4D 0G 0l 0x 1Q 2p 2a 1K
4E 1w 2Q 19 1k 3G 24 0p
22 4F 0P 3C 3J 1D 2n 1m
2i 1J 3P 2v 1s 2O 0k 1M
```


Page 50

Page 50 contains:

2M	0w	3L	3D	2r	0S	1p	15
3V	3e	3I	0n	3u	1O	0u	0Z
3g	2U	1C	0Y	1N	3n	0W	3Q
22	13	0V	3c	0E	34	0W	1t
1D	2N	3H	47	0s	2p	0Z	34
0g	3v	1Q	0s	0D	0K	2h	3D
3L	2x	1Q	20	2n	2L	1C	2p
0A	29	3r	0D	45	0k	2e	2W
25	3U	1W	2r	46	2s	2X	39
3p	0X	0E	1q	0q	4B	49	48
3r	3b	3C	1M	1j	0I	4A	48
40	3m	4E	0s	2S	1v	3T	0I
3t	2B	2k	2t	2Q	0e	2l	1L

Page 51

Page 51 contains:

28	2a	0J	1L	0c	3C	2o	0X
00	2Z	2d	1T	2u	1t	1j	0i
1o	1E	3T	18	3E	1G	27	0L
0v	2t	06	11	1A	2U	4B	10
2M	3d	2S	0x	0w	0q	0p	2V
18	0q	1D	49	2O	00	1v	2t
1k	3s	3G	21	3w	0W	29	2r
2O	2L	0g	3Y	0M	0u	3I	3C
1r	2c	2q	3o	30	0a	39	1K

Cicada in 2015

In January 2015, to the disappointment of some, nothing was heard from Cicada. No new puzzle appeared, only a dearth of terrible imitations and troll puzzles. Some theorized it was because the Liber Primus had not been completed, some believed the members they were looking for were enough, or even that 3301 had given up. Regardless of the individual opinions, there was only one public communication from 3301 in this year. Much like their [previous response to accusations of hacking](#), 3301 responded similarly to a claim during the Planned Parenthood hack in July that the hacker involved was 3301



A New Post on Cicada's Twitter Account

At 10:35 P.M. on the 27th of July 2015, Cicada 3301 broke the silence and posted a Pastebin link to their official Twitter account, [@1231507051321](#):

10:35 PM - 27 Jul 2015 [Direct Link]

This tweet links to a [message from Cicada 3301 on Pastebin](#).

2015 "Planned Parenthood" Pastebin Message (Raw Text)

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1
```

Some news organisations have recently claimed that "3301" is tied to the illegal activities of a group that has claimed responsibility for attacks against Planned Parenthood.

We do not engage in illegal activities. We are not associated with this group in any way, nor do condone their use of our name, number, or symbolism.

3301

```
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1
```

```
iQIcBAEBAgAGBQJVtw9HAAoJEBgfAeV6NQkPIP0P/3JCIXeJwMERQ2Ofzduoh3Jo
Ll27XoYWQ5Q2OFL//HCn4fVR3qf5bCh8IlapeW3vq2dLTIPMlHf/FPUL9oSWoXN2
3F94PWnGN1GlCvU1NFsUxIxPwR+bP2bZr7dOZry/aWrV4RchjYE26xsZp+Vc5w7T
WAT6zX1SA8fhJH4XmJUKsF+7bnIW8TmzUpuHDcYwMGAgwQPoxibprFwY+juJp8KV
ZJOW76rU3F18KhHLbDrFUNwDkXddI7mkf8Nsux+I/Pz0+vqvdfH15nEuV2MORh5w
nYOg3X3duqQ8LLVxmlIIbMIM5hj8I95QnXxebN1bp6yn92RvHqKU++1MyQ1f4iVW
KFeNWatuF47DTcoadBDVRFLrtcYWFYkcRj913i7bT+Kt3q3pBtdM1P/CAFaO3WwV
fN7jFhTKQIcVGl9RL44CMFCvL1VVUZzT+4SQxLjwSaSfXKN2NF9zbPoWGfx9dHHF
fFuIsVTQbBMHYaJhGTa6lkPH1Jgbtf0kYsRnNnQ1Rk6zSzGT6l5fvzMi6ahxro+S
zrPAdjLJK5VXYaI/bVD+qZXTPa4VbETTUDPgpAKvW6aYzuLld4t4v3EbH1DfNyT
XWYqoo3+/JP6VkeSPMyBP4xIdsEiu9jPd0OSmU6UOFPI2OH5zAjdOZ/rqMzvO5pk
aZ3Wu1GK9nmbAhMQPni+
=77uq
-----END PGP SIGNATURE-----
```

This message has a PGP signature; checking it against the Cicada 3301 PGP key proves that this message is in fact from Cicada 3301. Therefore, this is the first official message that Cicada 3301 has given us in 2015.

This message was posted shortly after a series of against Planned Parenthood were carried out by a group Cicada 3301. This message refutes their claim, and states that Cicada 3301 is not involved in illegal activities. Soon message was released, the group admitted that they were not associated with Cicada 3301 in any way.



cyberattacks claiming to be (once again) after this

This message is modified, but is directly copied from another message which Cicada 3301 released in 2012. There are, however, some unusual differences between the two that are worth mentioning.

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1
```

Some news organisations have recently claimed that "3301" is tied to the illegal activities of a group that has claimed responsibility for attacks against Planned Parenthood.

We do not engage in illegal activities. We are not associated with this group in any way, nor do condone their use of our name, number, or symbolism.

3301

```
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1
```

```
iQIcBAEBAgAGBQJVtW9HAAoJEBGfAeV6NQkPIPOp/3JCIXeJwMERQ2Ofzduoh3Jo
Ll27XoYwQ5Q2OFL//HCn4fVR3qf5bCh8IlapeW3vq2dLTIPM1Hf/FPUL9oSWoXN2
3F94PWnGN1G1CvU1NFsUxIxPwR+bP2bZr7dOZry/aWrV4RchjYE26xsZp+Vc5w7T
WAT6zX1SA8fhJH4XmJUKsF+7bnIW8TmzUpuHDcYwMGAgwQPoxibprFwY+juJp8KV
ZJOW76rU3F18KhHLbDrFUNwDkXddI7mkf8Nsux+I/Pz0+vqvdfH15nEuv2MORh5w
nY0g3X3duqQ8LLVxm1IibMIM5hj8I95QnXxebN1bp6yn92RvHqKU++1MyQ1f4ivW
KFeNWAtuF47DTcoadBDVRFLrtcyWYFkcRj913i7bT+Kt3q3pBtdM1P/CAFaO3WwV
fN7jFhTKQIcVG19RL44CMFCvL1VVU2zT+4SQxLjwSaSfXKN2NF9zbPoWGfx9dHHF
fFulsVTQbBMHYaJhGta6lkPHlJgbtnf0kYsRnNnQ1Rk6zSzGT615fvzMi6ahxro+S
zrPAdjLJK5VXYaI/bVD+qZXTPa4VbETTUDPgPAKvW6aYzuLld4t4v3EbH1DfNyT
XWYqoo3+/JP6VkeSPMyBP4xIdsEiu9jPd0OSmU6UOFPI2OH5zAjd0Z/rqMzvO5pk
aZ3Wu1GK9nmbAhMQPNi+
=77uq
```

```
-----END PGP SIGNATURE-----
```

The 2015

"Planned Parenthood" message begins the same way, and uses very similar language. They again use the French " -ise" form for 'organization'. This time, however, 3301 refer to themselves simply as "3301", not "Cicada 3301." On the 7th line of this message, Cicada has omitted/forgotten a 'we': "...nor do [we] condone their use of our name..."

Sequence of Numbered Spaces in "Planned Parenthood" Message:

Interestingly, the lines are separated with more than just line breaks in this new message. There is a set of spaces between each paragraph, with a seemingly random number of space characters, before the line is broken and a new paragraph is started.

On the line before the first paragraph is a set of 5 spaces. Between the first and second paragraph is a line with a set of 3 spaces. The second paragraph is followed by a line with a set of 2 spaces. The next line has the signature "3301", followed by a line with a set of 5 spaces, and ending on a line with a set of 7 spaces.

From the top down, this sequence spells out 5-3-2-5-7, or 53257. Individually, these digits are all prime. When you consider their placement in the message, the numbers 5-3-2 act as spacers between paragraphs, while 5-7 separates the "3301" signature from the end of the message. So you have the numbers 5-3-2 or 532, "3301", and 5-7 or 57. Remember that the rune pages were numbered 0-57, so this may be significant.

The "message.txt.asc" File From 2014 Rune Pages

Cicada used sets of spaces to represent numbers in a previous message as well, the [message.asc.txt](#) file from the unfinished Rune Pages step in 2014 (that link goes to the original file, open it in a text editor like notepad). Most of

their other messages and Pastebins are not separated with sets of spaces, but with ordinary line breaks (as in the "Necrome" message.) In the [message.txt.asc](#)^[pastebin version], the spaces were used to represent the prime sequence with an interesting omission. Here is a raw text version of message.txt.asc with the characters highlighted to show the sets of space characters:

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Hello.  Your enlightenment awaits you.

    ky2khlqdf7qdzna.c.onion

We look forward to hearing from you.

Good luck.

3301

-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.4.11 (GNU/Linux)

iQIcBAEBAgAGBQJTO88vAAoJEBGfAeV6NQkPEfsQAI0jGcmBaQr2AGGr1/ic839I
fc58EyVNLgWs6Aox0/Dc2Tj8dXOxc0sBNWY98tICiY2T0Vbpf1VF65nFs+cVcxXI
pXIU5X003XKRfxequIZQQUnt4e1LIffAIgrXbE9N7K5qkD47xg4kaYkPQh7/mDBa
NBVHsLkw8bbLUo7lBtv5VFHTeTikSnT3m7FsoSH15WlsY9WvITO5VcYd48jFbBSS
P9Uk7v7cg1ohWpDB0BiYUTfOVxXYuZpnFiR6vAADP5KkY/qrFF7wrpYbhSmageId
Qcxyc/dajUTlwK7dl+OwAJn4XRPceBPMjW9SbCr33y1C3ijCuxn06penu0KnUyge
yYjyedXg11UPb/B6eT+hwAOPg/DLDTQ57QOQ1GOX191B56iZbHKug1QZUZ5kJq54
dTobWhi6FBtwu+QLnJCz2SASLCuKDIWFkwSoYro/F9Zlo7b0UUO2IOkcKw7tKzq9
uyPtBDQayCSIIHJhVjAtNiVFjNe+TcBf1VppAGY/7jfUfwxJ7Sfbv5Jwll+6MDYr
YdsnJBZjhLuoxFyr9g4TF0OTXmxT+TyAZ4qoItu4C0bcEncBcfLJz+J74X1upsZl
DMq7On1paQAKXvzr6ywDBpMJbDZETk19gZbzHn1Ji+9f3fANrqU+5kZ1su2OReQf
++CO13gAUF4WohKip4mC
=VAo/
-----END PGP SIGNATURE-----
```

Looking at the image above, we can see that Cicada 3301 used sets of spaces to separate and format this message. This is unnecessary, they could have simply used line breaks. The number of spaces used in each "set" follows the prime sequence, from top to bottom in the message. The number 19, however, is missing from this sequence and nobody could really figure out why it was omitted. Interestingly enough, if 19 were included in this sequence we would have a total of 12 primes. Without it we have 11, which is also a prime.

Below is a comparison of this message to the 2015 "Planned Parenthood" message, which shows these sequences in better detail.

"message.txt.asc" vs "Planned Parenthood" Message

Here are the raw text forms of both messages, if you would like to count the number of spaces yourself:

["message.txt.asc"](#) (2014)

["Planned Parenthood" Message](#) (2015)

For a better visualization of the numbers being represented, I have replaced the space character sets with crosses(+), and include counts for each set:

"message.txt.asc" (Spaces Replaced and Counted):

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Hello.  Your enlightenment awaits you.++ <----- 2
+++ <----- 3
+++++ky2khlqdf7qdznac.onion++++++ <----- 5, 7
+++++++ <----- 11
We look forward to hearing from you.
+++++++ <----- 13
+++++++ <----- 17
Good luck.+++++++ <----- 23
+++++++ <----- 29
3301
+++++++ <----- 31
+++++++ <----- 37
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1.4.11 (GNU/Linux)

iQIcBAEBAgAGBQJTO88vAAoJEBgfAeV6NQkPEfsQAI0jGcmBaQr2AGGr1/ic839I
fc58EyVNLgWs6Aox0/Dc2Tj8dXOxc0sBNWY98tICly2T0Vbpf1VF65nFs+cVcxXI
pXIU5X003XKRfxequIZQQUnt4elLIffAIgrXbE9N7K5qkD47xg4kaYkPQh7/mDBa
NBVHsLkw8bbLUo7lBtv5VFHTEtikSnT3m7FsoSH15WlsY9WvITO5VcYd48jFbBSS
P9Uk7v7cg1ohWpDB0BiYUTfOVxXYuZpnFiR6vAADP5KkY/qrFF7wrpYbhSmageId
Qcxyc/dajUTlwK7dl+OwAJn4XRPceBPMjW9SbCr33y1C3ijCuxn06penu0KnUyge
yYjyedXg11UPb/B6eT+hwAOPg/DLDTQ57QOQ1GOX191B56iZbHKuglQZUZ5kJq54
dTobWhi6FBtwu+QLnJCz2SASLCuKDIWFkwSoYro/F9Zlo7b0UUO2IOkcKw7tKzq9
uyPtBDQayCSIIHJhVjAtNiVFjNe+TcBf1VppAGY/7jFUfwxJ7Sfbv5Jwll+6MDYr
YdsnJBZjhLuoxFyr9g4TF0OTXmXT+TyAZ4qoItu4C0bcEncBcfLJz+J74XlupsZl
DMq7On1paQAkXvzr6ywDBpMJbDZETkl9gZbzHn1Ji+9f3fANrqU+5kZ1su20ReQf
++CO13gAUF4WohKip4mC
=VAo/
-----END PGP SIGNATURE-----
```

"Planned Parenthood" Message (Spaces Replaced and Counted):

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

+++++ <----- 5
Some news organisations have recently claimed that "3301" is
tied to the illegal activities of a group that has claimed
responsibility for attacks against Planned Parenthood.
```



```

+++ <----- 3
We do not engage in illegal activities. We are not associated
with this group in any way, nor do condone their use of our
name, number, or symbolism.
++ <----- 2
3301
+++++ <----- 5
+++++++ <----- 7
-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1

iQIcBAEBAGAGBQJVtw9HAAoJEBgfAeV6NQkPIP0P/3JCIXeJwMERQ2Ofzduoh3Jo
Ll27XoYWQ5Q2OFL//HCn4fVR3qf5bCh8IlapeW3vq2dLTIPMlHf/FPUL9oSWoXN2
3F94PWnGN1G1CvU1NFsUxIxPwR+bP2bZr7dOZry/aWrV4RchjYE26xsZp+Vc5w7T
WAT6zX1SA8fhJH4XmJUKsF+7bnIW8TmzUpuHDcYwMGAgwQPoxibprFwY+juJp8KV
ZJOW76rU3F18KhHLbDrFUNwDkXddI7mkf8Nsux+I/Pz0+vqvvdFH15nEuV2MORh5w
nYOg3X3duqQ8LLVxmlIibMIM5hj8I95QnXxebN1bp6yn92RvHqKU++lMyQ1f4iVW
KFeNWatuF47DTcoadBDVREFLrtcYWFYkcRj913i7bT+Kt3q3pBtdM1P/CAFaO3WwV
fN7jFhTKQIcVGL9RL44CMFCvL1VVUZzT+4SQxLjwSaSfXKN2NF9zbPoWGfx9dHHF
fFulsVTQbBMHYaJhGTa6lkPH1JgbtF0kYsRnNnQ1Rk6zSzGT6l5fvzMi6ahxro+S
zrPAdjLJK5VXYaI/bVD+qZXTMpa4VbETTUDPgPAKvW6aYzuLld4t4v3EbH1DfNyT
XWYqoo3+/JP6VkeSPMyBP4xIdsEiu9jPd0OSmU6UOFPI2OH5zAjdoZ/rqMzvO5pk
aZ3Wu1GK9nmbAhMQPNi+
=77uq
-----END PGP SIGNATURE-----

```

Cicada in 2016

Again in January of 2016, solvers found no new puzzle awaiting them at the start of January. This time, there was a message however. An image posted interestingly to Infotomb, a site that had been set up by a solver in previous years, originally to answer the question of how to send images while maintaining steganographic qualities of them.

The image, shown below, encouraged solvers not only to look back to the unfinished Liber Primus, but also to stop getting distracted by the imitations and fakes that always arise. This was during a time that a very large number of the new, inexperienced or even foolish users were following a long trail devoid of any sort of verifiable evidence of Cicada.

Cicada's Twitter

Account: <https://twitter.com/1231507051321>



Cicada twitter posted <https://twitter.com/1231507051321/status/684596461628223488> which leads to the image on the left.

Important note: What was believed to be a "dendrite" is actually an oak tree, as revealed by a Google search for "dead oak tree clipart". (<http://www.clipartbest.com/cliparts/abc/y97/abcy97qTL.jpeg>)

- Please note, the blocks in the background are noise from the image compression, not a QR code.
- The image size is 563 x 569 (both primes).

When outguessed, the image contains the same text, signed to prove validity. The Tree shown in the background of some pages of the Liber Primus was placed with the cicada in the background of the image, likely to indicate a starting point to solvers.

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Hello.

The path lies empty; epiphany seeks the devoted.

Liber Primus is the way. Its words are the map, their
meaning is the road, and their numbers are the direction.

Seek and you will be found.

Good luck.

3301

Beware false paths. Verify OpenPGP 7A35090F.

-----BEGIN PGP SIGNATURE-----
Version: GnuPG v1

iQIcBAEBAGAGBQJWhcHDAAoJEBgfAeV6NQkP8GUP/iDXI/9lqvU/HTCuJpPcIgYJ
H0Z8FdHDjz86A9yeyXYEUwPulcLjSNUyGLBlU5dXuGpakuVeHtHnocuwrY24E2o4
Bnaqd1U8hUVU4Y68Va+jRIKS2NrPwg+HFFHr44DHKLHBM4CRqhLBFin36CeUIWmi
jykPMWwrLgxLy8FNXHvN/Fxqt0dbZ6/g1pxM2XOVEvy8bW/Xj7rj3VJGFOL7YVmm
Lae2PuChmLZD/gaIhbGcPG7NEyUpFBbKEZ6U15i5lMeaRgS6KJHwLykeYdGWn65v
j8uY8+5zLBYus/OdbAZiiY6FnOgU/ESRQChQZILxiUIVT/OtFjz5IHrcVg3otoHl
tVfnSvqEk/AJ+w/MscTIBdxLPuvHmYD1B1XK/uZCRP/Dby6x8NFAR/zKAsqzkTY7
E4m34JzcPdsTnla0zmnz/O90jiJfH+QAogyZSuEpdJIJlyFSzvDwhDme55gIAC0x
E1W7mxiOdss+Ebbmyyv4ul+l0UCB3qzfLw2Vijxmw/nWoDRqKk6kJf9vWL05BRu9
RoAap3rh0AC7SCV3fHjQj5VOUEJzHoz4YzrK15sa7SOZfeiP6XpfdzZfesiAWI8x
MUiyTFIqCeWZWJoSle/lyFtumTkX08/Dn0SCx9D4R6DVSIm9PRsdYgzT/+oRlIEl
Y8f7hrgdyn31uqGUgV4q
=sKXT
-----END PGP SIGNATURE-----
```

That's currently the end. The solvers have returned to their attempts on the Liber Primus, but it remains almost 2 years since a page was decrypted. Feel free to come join us in #cicadasolvers on Freenode to discuss any further.