GNOME and Blockchains

Why? What? How?

Anish Patil , Twitter - anish_patil

Daniel Playfair Cal, Twitter - hedgepigdaniel

Why?

Heisenbugs

- Hard to solve without help from affected users (stacktraces, valgrind logs, etc)
- Even if many users are affected, few are motivated to help

E.g. https://bugzilla.gnome.org/show_bug.cgi?id=783935, https://bugzilla.gnome.org/show_bug.cgi?id=785657

Collapse All Comments
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Philip Chimento [reporter] [developer] 2017-06-18 19:59:52 UTC Description [reply] [–]

From ~~bug 781799~~:

```
> Arch Linux
> gjs 1.48.4-1
> gnome-shell 3.24.2-1
> wayland 1.13.0-1
> js38 38.8.0-3
>
>        Message: Process 852 (gnome-shell) of user 1000 dumped core.
>
>                 Stack trace of thread 852:
>                 #0  0x00007f4f051f5735 _ZN2js9GCMethodsIP8JSObjectE16needsPostBarrierES2_ (libgjs.so.0)
>                 #1  0x00007f4f0330f8b5 g_main_context_dispatch (libglib-2.0.so.0)
>                 #2  0x00007f4f0330fc78 n/a (libglib-2.0.so.0)
>                 #3  0x00007f4f0330ff92 g_main_loop_run (libglib-2.0.so.0)
>                 #4  0x00007f4f04ad2fdc meta_run (libmutter-0.so.0)
>                 #5  0x0000000000401ff7 main (gnome-shell)
>                 #6  0x00007f4f02d2243a __libc_start_main (libc.so.6)
>                 #7  0x000000000040212a n/a (gnome-shell)
>
> I got this crash approximately 5-10 minutes after start of gnome session while surfing the web in google-chrome.


Info that would be helpful:

- Backtrace with full debug symbols (source files and lines)
- Is there anything specific that triggers the crash? Any specific browser use?
```

Christian Stadelmann 2017-06-19 11:09:50 UTC Comment 1 [reply] [–]

I don't think I've been running into that crash at all. Thus, I don't have any clue of how to reproduce it.

fedor 2017-06-20 16:47:57 UTC Comment 2 [reply] [–]

Created attachment 354111 [details]
screen log of gdb stacktrace

- Going to the market all the time can impose heavy transaction costs. You need to hire workers, negotiate prices and enforce contracts
- A firm is essentially a device for creating long-term contracts when short-term contracts are too bothersome

(Source- *http://www.economist.com/node/17730360*)

- Not worth the time of a large firm offering OSS development
- No system for directly contacting a developer
- Even harder to reward bug reporters, testers

- Affected users could add to bug bounties
- Users could get small payments for providing logs / stacktraces etc
- Developers could be supported to work on such bugs
- Maybe more developers would find the time?

DEATH NOTE

1: Person can be killed only once

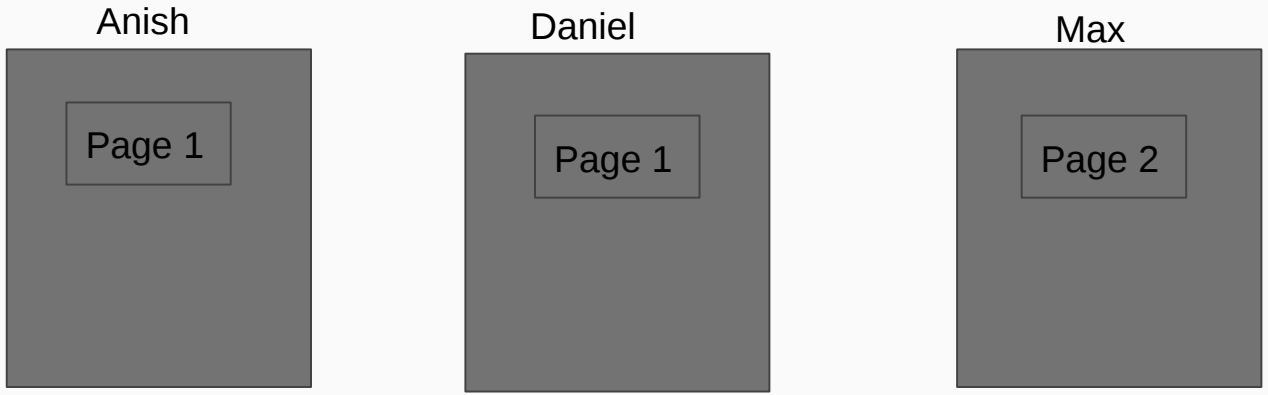
2: Initially it has only one page

3: When a person add new page it should be linked to next page

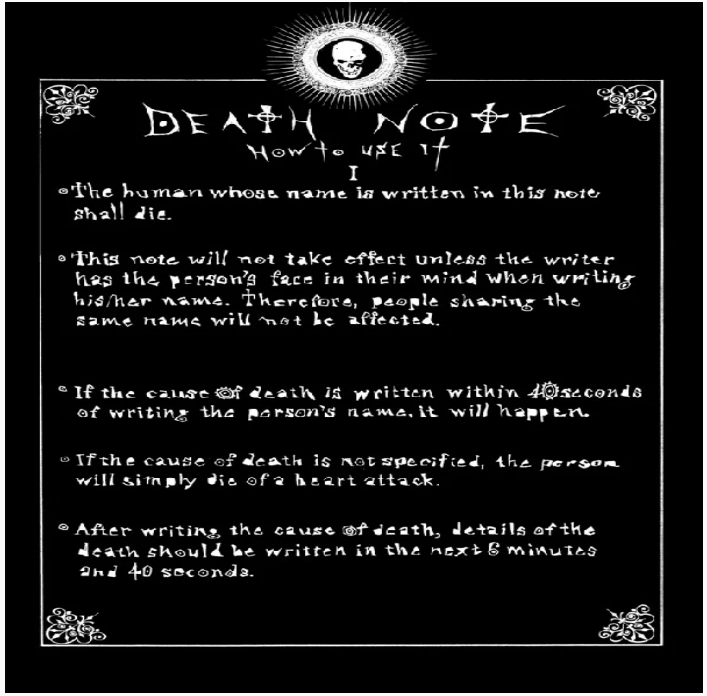
4: Death note has 100 pages

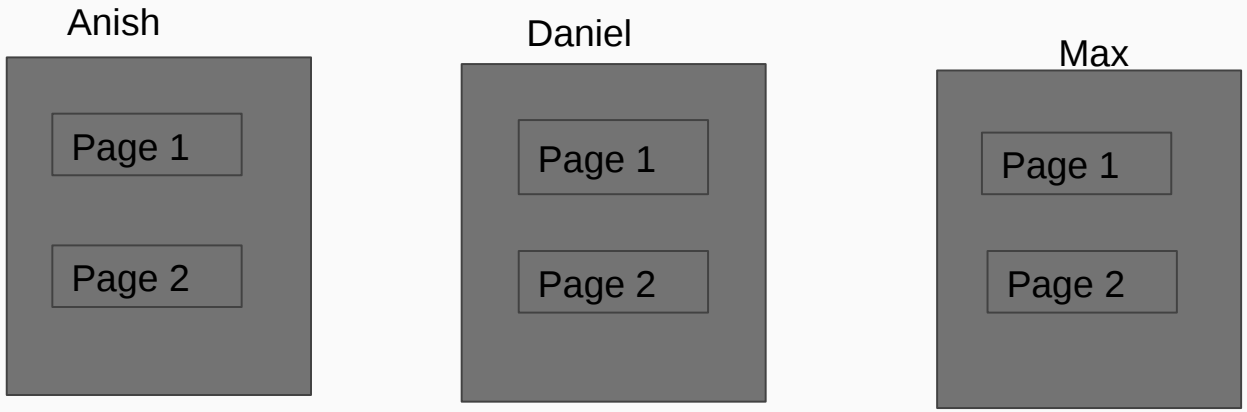
5: To add new page person rolls the dice and person whoe’s dice match the number gets to add new page

6: Person who add max number of pages wins the game


Anish
Page 1
Daniel
Page 1
Max
Page 2

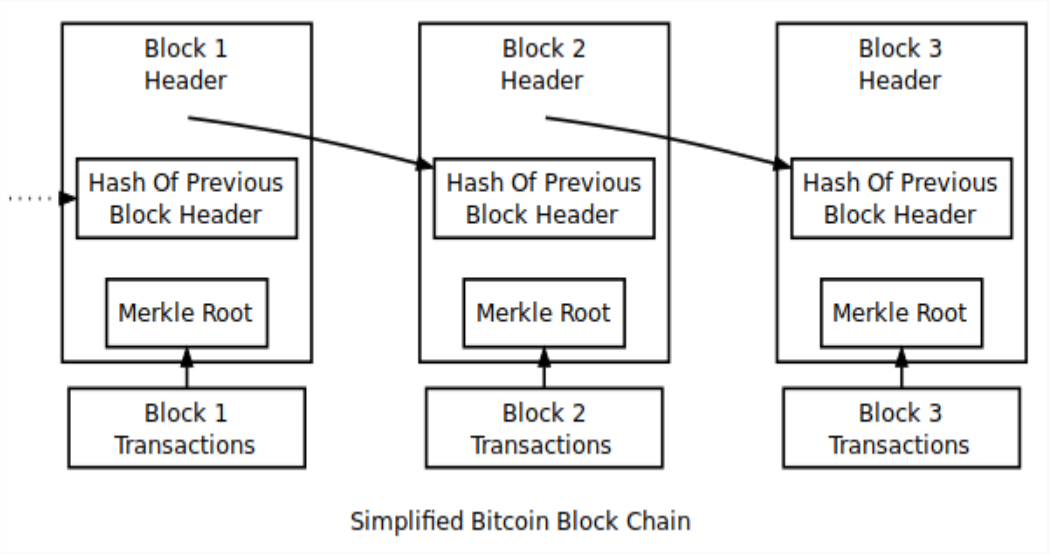
Message
‘KILL: JOHN DOE : 15 Oct 2017:Heart Attack’


DEATH NOTE
How to use it
I
◦The human whose name is written in this note shall die.
◦This note will not take effect unless the writer has the person's face in their mind when writing his/her name. Therefore, people sharing the same name will not be affected.
◦If the cause of death is written within 40 seconds of writing the person's name, it will happen.
◦If the cause of death is not specified, the person will simply die of a heart attack.
◦After writing the cause of death, details of the death should be written in the next 6 minutes and 40 seconds.

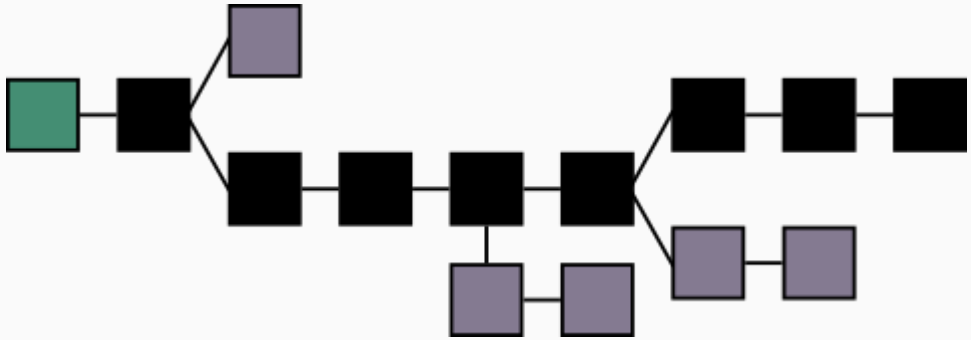

Anish
Page 1
Page 2
Daniel
Page 1
Page 2
Max
Page 1
Page 2

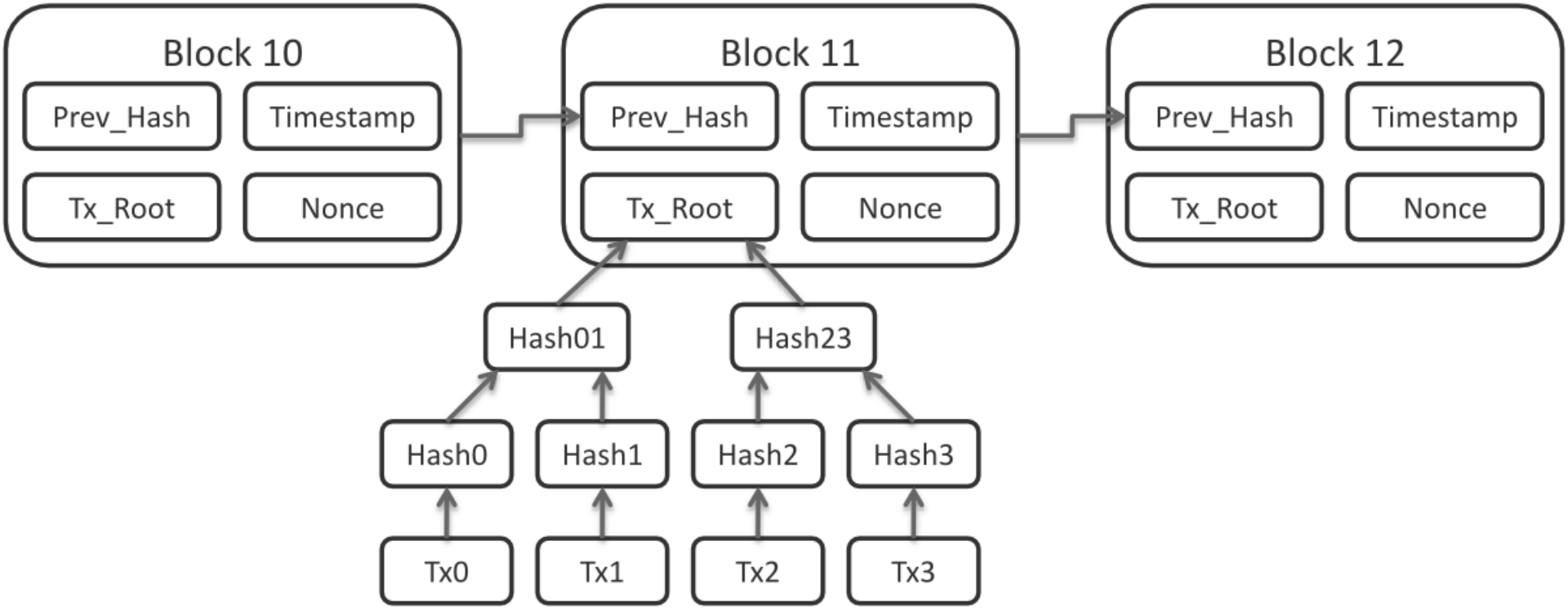
Transactions

bitcoin
ACCEPTED HERE



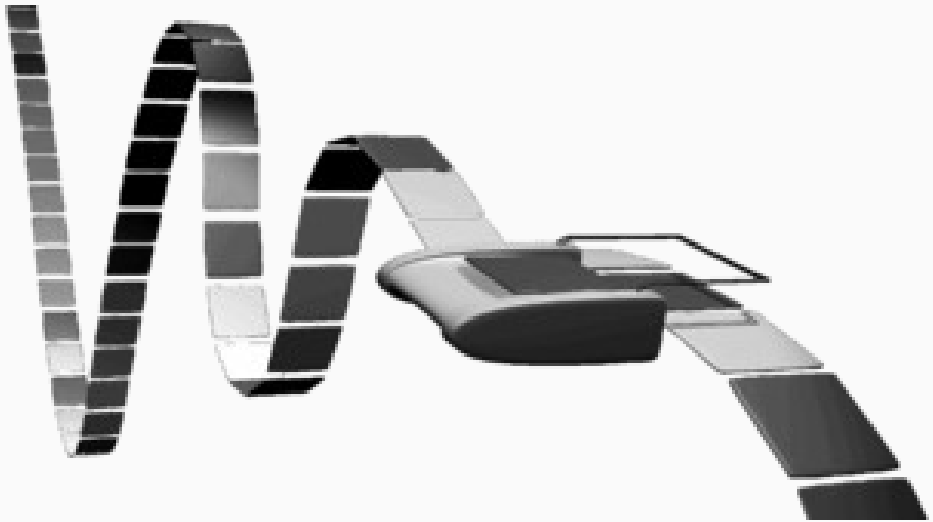
Simplified Bitcoin Block Chain




Block 10
Prev_Hash
Timestamp
Tx_Root
Nonce
Block 11
Prev_Hash
Timestamp
Tx_Root
Nonce
Block 12
Prev_Hash
Timestamp
Tx_Root
Nonce
Hash01
Hash23
Hash0
Hash1
Hash2
Hash3
Tx0
Tx1
Tx2
Tx3

Ethereum?

What if the game was literrally anything?



Smart Contracts

- Currency (lots of them)
- Proof of existence/registration
- Elections
- Bets
- Legal contracts
- Companies/organisations

Bugs and features

- Some bugs are difficult to reproduce (heisenbugs), so help from affected users is necessary
- Many developers want to work on GNOME but can’t find time and financial support to do so

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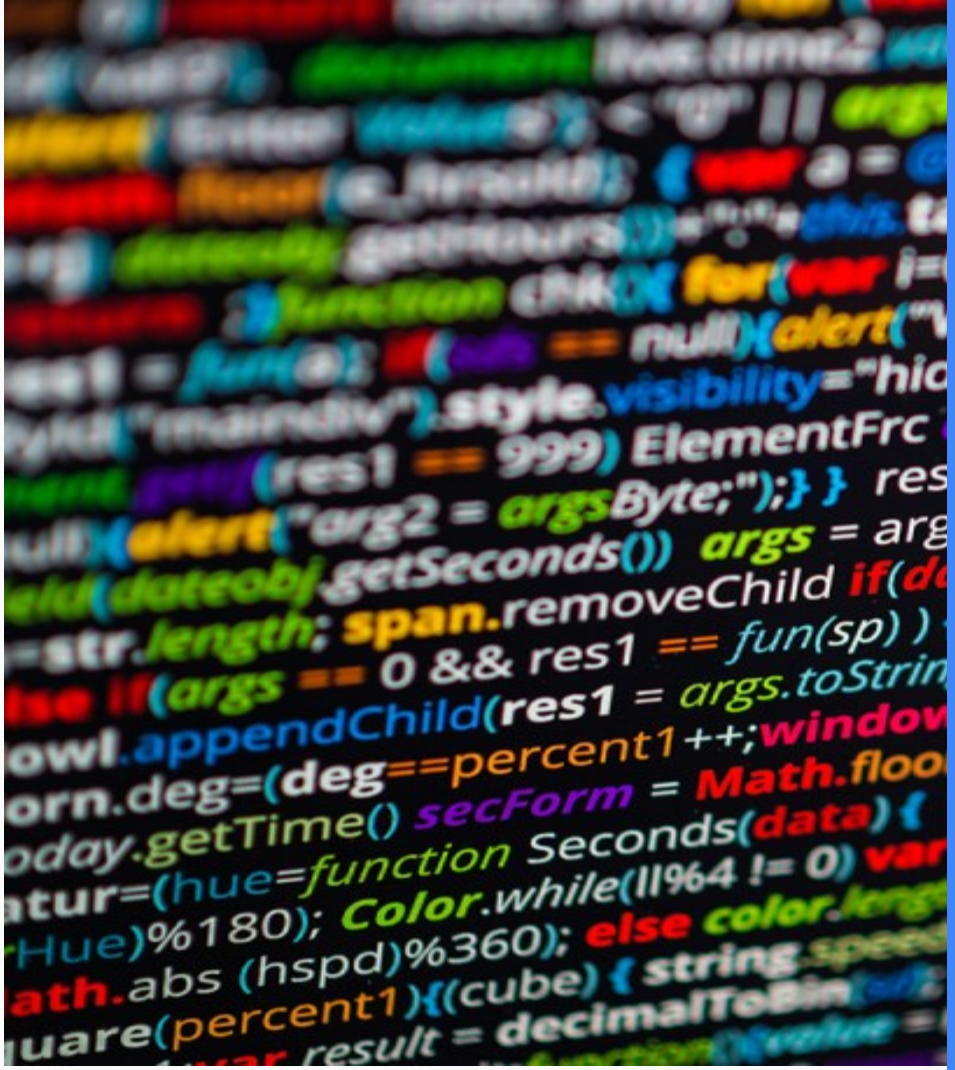
- Any affected users could contribute to the bounty (even small amounts would be efficient)
- Developers could be rewarded for fixing popular bugs
- Users could be rewarded for collecting useful logs
- No central coordination necessary, no international bank transfers, no paper

Elections

- Gnome foundation Board of directors Elections
- Voting on Boards decision



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