How I got hacked …

The beginning of the cyber security journey from 1999 to 200X

Or what worked back then …

Ganbold Ts, MNSEC 2022

About me

- Major/Specialty - Computer Science, Systems engineer
- Work experience
  - Senior programmer - The Secretariat, Parliament of Mongolia
  - Systems engineer - UNDP project, Government of Mongolia
  - Senior programmer, Systems engineer, Tech manager - Micom Co Ltd., ISP
  - Director of IT division - MobiCom Corporation
  - Advisor - MNCERT/CC
- FreeBSD src and doc committer

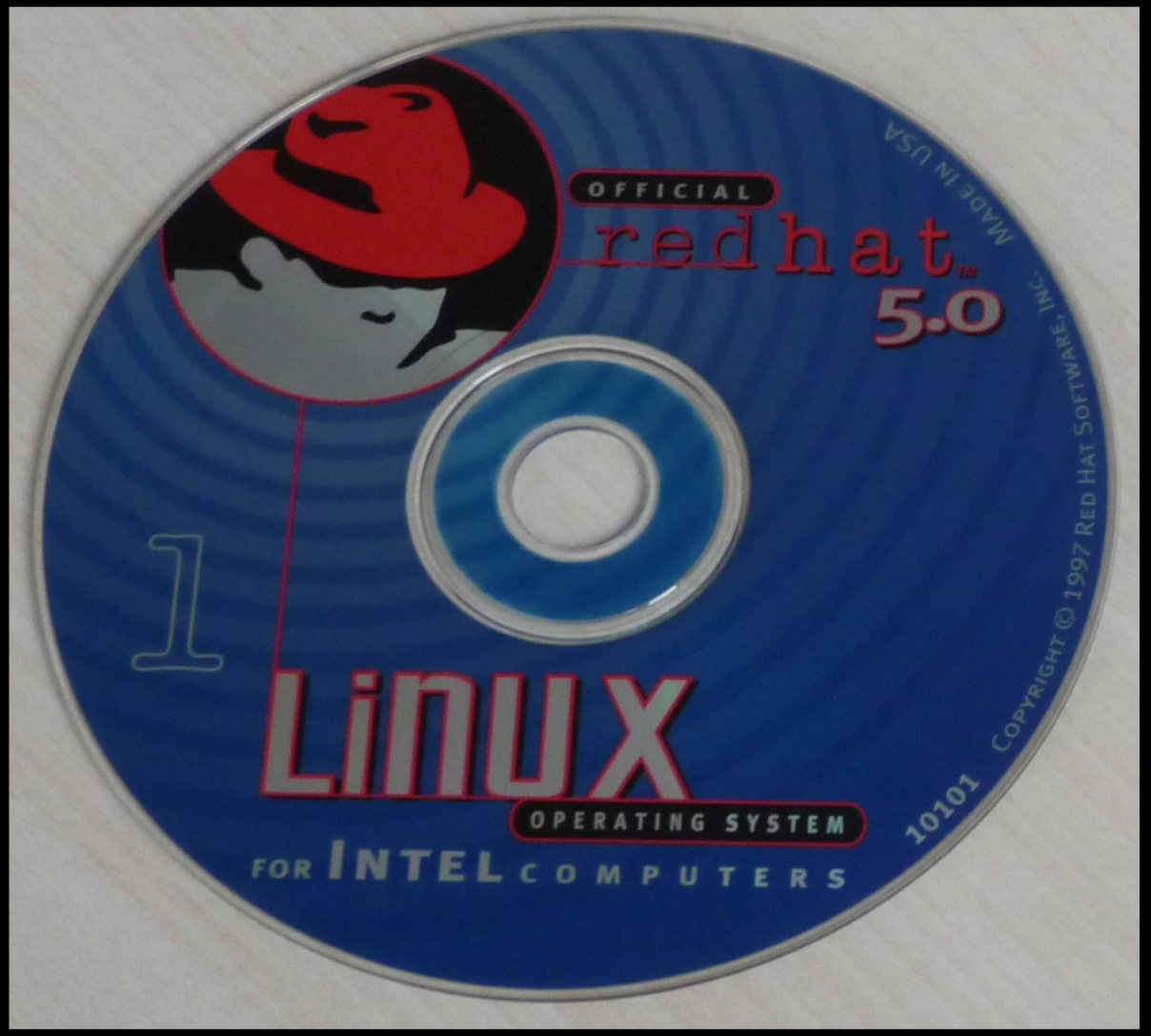
Overview

- RedHat and mountd
- After mountd …
- sfbayautos.com mistakes
- BSOD, buffer overflow learning on FreeBSD, war games
- Got hacked again …

RedHat …

- Sometime in 1999 …
  - Leased line – Micom
  - First RedHat installation
    - HP Vectra Desktop
    - RedHat v5.0
- Tried Russian localization
  - Font edit
  - keyboard input, output
- I liked it 

```
root@beastie:/usr/freebsd-src/tools # ls -l
total 99
drwxr-xr-x   2 tsgan  tsgan     9 19 авг.  13:19 boot
drwxr-xr-x   2 tsgan  tsgan    12 30 сент. 05:18 bsdbox
drwxr-xr-x   9 tsgan  tsgan    23 19 авг.  13:19 build
drwxr-xr-x   5 tsgan  tsgan    11 24 дек.   2020 bus_space
drwxr-xr-x   2 tsgan  tsgan     3 24 дек.   2020 coccinelle
drwxr-xr-x   2 tsgan  tsgan     7 24 дек.   2020 debugscripts
drwxr-xr-x   5 tsgan  tsgan     6 24 дек.   2020 diag
drwxr-xr-x   2 tsgan  tsgan     3 24 дек.   2020 ifnet
-rw-r--r--   1 tsgan  tsgan  2355 24 дек.   2020 install.sh
drwxr-xr-x   3 tsgan  tsgan     5 24 дек.   2020 kerneldoc
drwxr-xr-x   2 tsgan  tsgan     3 24 дек.   2020 LibraryReport
drwxr-xr-x   2 tsgan  tsgan     3 24 дек.   2020 lua
-rw-r--r--   1 tsgan  tsgan  3683 24 дек.   2020 make_libdeps.sh
drwxr-xr-x   2 tsgan  tsgan     4  9 июля  05:38 pkgbase
-rw-r--r--   1 tsgan  tsgan   347 24 дек.   2020 README
drwxr-xr-x  49 tsgan  tsgan    51 24 дек.   2020 regression
drwxr-xr-x   2 tsgan  tsgan     5 17 марта  2022 sched
drwxr-xr-x  22 tsgan  tsgan    23 17 марта  2022 test
-rwxr-xr-x   1 tsgan  tsgan  2206 24 дек.   2020 tinder.sh
drwxr-xr-x  84 tsgan  tsgan    85 17 марта  2022 tools
drwxr-xr-x   3 tsgan  tsgan     3 24 дек.   2020 uma
root@beastie:/usr/freebsd-src/tools #
```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5.0
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FOR INTEL COMPUTERS
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RedHat …

One day something got changed … 

LANG env var

- One day …
  - LANG env var was changed
  - I changed back to Russian
- Few days later …
  - LANG was changed again
-  …

```
root@beastie:/usr/freebsd-src/tools# ls -l
total 99
drwxr-xr-x   2 tsgan  tsgan     3 Dec 24  2020 LibraryReport
-rw-r--r--   1 tsgan  tsgan   347 Dec 24  2020 README
drwxr-xr-x   2 tsgan  tsgan     9 Aug 19 13:19 boot
drwxr-xr-x   2 tsgan  tsgan    12 Sep 30 05:18 bsdbox
drwxr-xr-x   9 tsgan  tsgan    23 Aug 19 13:19 build
drwxr-xr-x   5 tsgan  tsgan    11 Dec 24  2020 bus_space
drwxr-xr-x   2 tsgan  tsgan     3 Dec 24  2020 coccinelle
drwxr-xr-x   2 tsgan  tsgan     7 Dec 24  2020 debugscripts
drwxr-xr-x   5 tsgan  tsgan     6 Dec 24  2020 diag
drwxr-xr-x   2 tsgan  tsgan     3 Dec 24  2020 ifnet
-rw-r--r--   1 tsgan  tsgan  2355 Dec 24  2020 install.sh
drwxr-xr-x   3 tsgan  tsgan     5 Dec 24  2020 kerneldoc
drwxr-xr-x   2 tsgan  tsgan     3 Dec 24  2020 lua
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drwxr-xr-x  49 tsgan  tsgan    51 Dec 24  2020 regression
drwxr-xr-x   2 tsgan  tsgan     5 Mar 17  2022 sched
drwxr-xr-x  22 tsgan  tsgan    23 Mar 17  2022 test
-rwxr-xr-x   1 tsgan  tsgan  2206 Dec 24  2020 tinder.sh
drwxr-xr-x  84 tsgan  tsgan    85 Mar 17  2022 tools
drwxr-xr-x   3 tsgan  tsgan     3 Dec 24  2020 uma
```
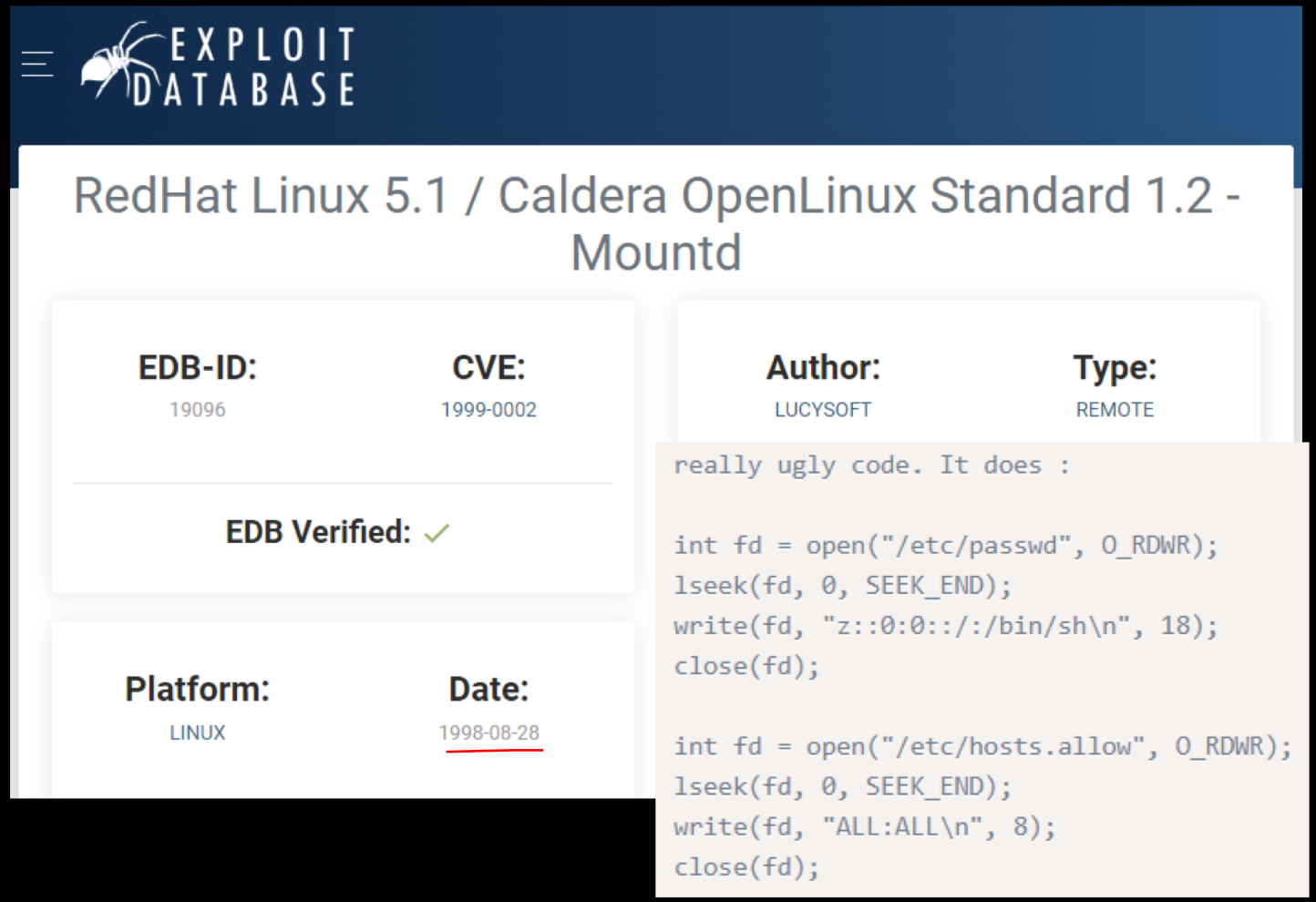

mountd exploit

- Found z user in /etc/passwd
- Who is z user? 🤔
- mountd exploit
  - NFS enabled by default
  - Logging code - buffer overflow
  - Remotely exploitable
  - Created z user with UID/GID 0:0
  - Rootkit was installed
    - xferlog
    - Somewhere from South Africa
    - changed LANG
  - Installed ircii – irc client

- I got hacked … 😈



After mountd …

- Sometime in 1999 – 2000 …
- Port scans
- Found some RedHat
- mountd exploit 😜
  - Packet captures on telnet, pop3 etc.
    - telnet, pop3 – clear text protocols
    - Got some credentials …

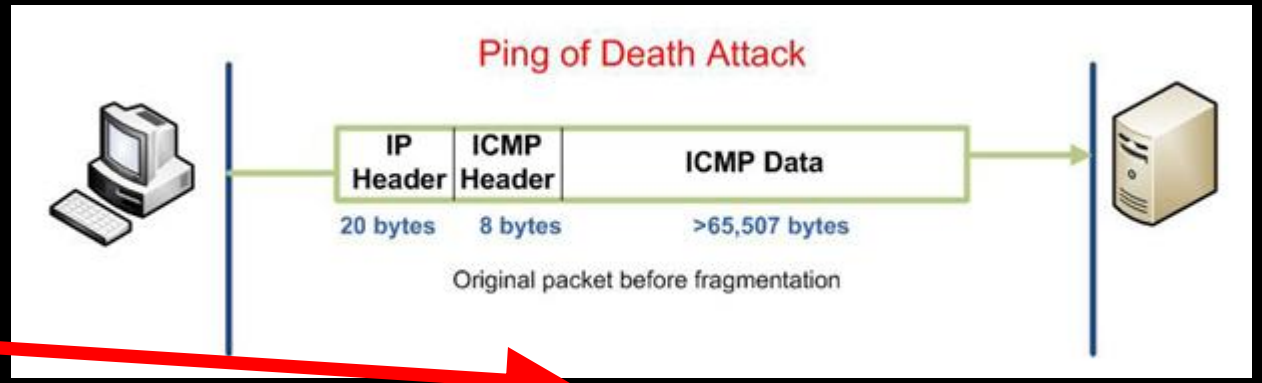
- Got anonymous email

sfbayautos.com

- Sometime in 2000 - 2001
- Car buy/sell site
  - Php/mysql
- Friend asked
- Worked well for sometime …
- Some email came …
  - No SSL
  - Credit card info in plaintext
- Oh 

BSOD, Buffer overflow, FreeBSD, wargames

- Sometime in 2001 - 2003
- Ping of Death – BSOD
  - Windows 95
  - IRC – Monstudnet -> got IP



- Buffer overflow learning on FreeBSD
  - http://www.dusal.net/downloads/books/pdf/Security/remote_buffer_overflow_mon.pdf
- Shell based war games
  - https://overthewire.org/wargames/
-

Got hacked again …

- Sometime in 200x
- Micom - ISP
  - Mostly FreeBSD
  - IRC chat
  - Shell server
  - Email Server Provider (corporate, individuals) - Web Mail Client
  - Etc ...
- Friend …
  - Hacked shell server – Fake login prompt – 2nd username/password
  - PHP file upload check - `$_FILES['file']['tmp_name']`
-  Lessons learned

Thank you