The Container Security in Healthcare Data Exchange System

Bachelor's degree graduation project

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> April 8, 2021 v1.0

Outline

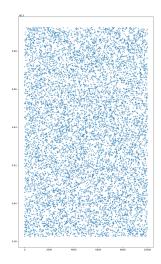
- Outcome
- Isseus

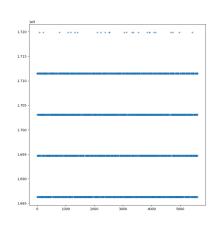
- FAQQ&A

Outcome

```
→ container git:(main) X gcc *.[ch] -o c
→ container git:(main) X sudo ./c "bash"
Success on creating container
Start container: bash with clone id: 193761
In container PID: 1
bash-5.0# ./test.sh
This is the self test script in contaiiner!
Support bash cat echo ls rm hostname, 5 commands.
./test.sh
  ------FILE: test.sh ------
    1 #!/bin/bash
    3 echo "This is the self test script in contailner!"
    4 echo "Support bash cat echo ls rm hostname, 5 commands."
    6 echo $0
    8 echo "------FILE: test.sh ------
    9 cat -n test.sh
   10 echo "------
   12 echo $(hostname) >天竺鼠車車
   13 cat 天竺鼠車車
   14 「 天竺鼠車車
   15 ls
container
bin dev etc home lib lib64 mnt opt proc root run sbin sys test.sh tmp usr var
bash-5.0# exit
exit
→ container git:(main) X
```

Outcome







Outcome

```
Run /init.sh as init process
  with arguments:
  with environment:
   HOME=/
   TFRM=linux
   hostfs=./rootfs
   mem=64M
kaslr: loading out-of-tree module taints kernel.
1694699525
random: fast init done
random: crng init done
→ 0326 git:(main) X less /proc/$$/maps
Python 3.8.5 (default, Jan 27 2021, 15:41:15)
[GCC 9.3.0] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import math
>>> math.log(1694699525. 2)
30.658382356126655
>>> exit()
```

The 3Ws

- What this issue?
- Why this issue?
- How this issue?

FAQ

- Ocker, container and virtual machine
- FHIR? Why need container?
- User Mode Linux
- o clone, io_uring

Q&A

Fill free to give your comments.