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SBAT revocation mechanism and managing it in Linux distributions

deeper dive into SBAT and how i learned to love it

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Aug, 2024

What is SBAT?

- Why we talk about SBAT right now ?
- UEFI Secure Boot Advanced Targeting
- Developed and introduced by upstream shim development group
- Implemented by both MS and Linux vendors
- Supplements “traditional” UEFI SecureBoot certificate verification but does not replace it
- Ensures less data in UEFI NVRAM storage is needed to store revocation data
- Single affected by any vulnerability signed EFI binary no longer requires certificate rotation

Did someone introduce a new way to “break” boot for Linux systems ?

- Some recent updates by vendors in 2024 caused dual boot failures
- Why MS is in the picture ?
- Who is in fault ? Who is wrong ?
- Should it have been done differently ?
- “Demonizing” SBAT and new features
- coming back to “why it was introduced”

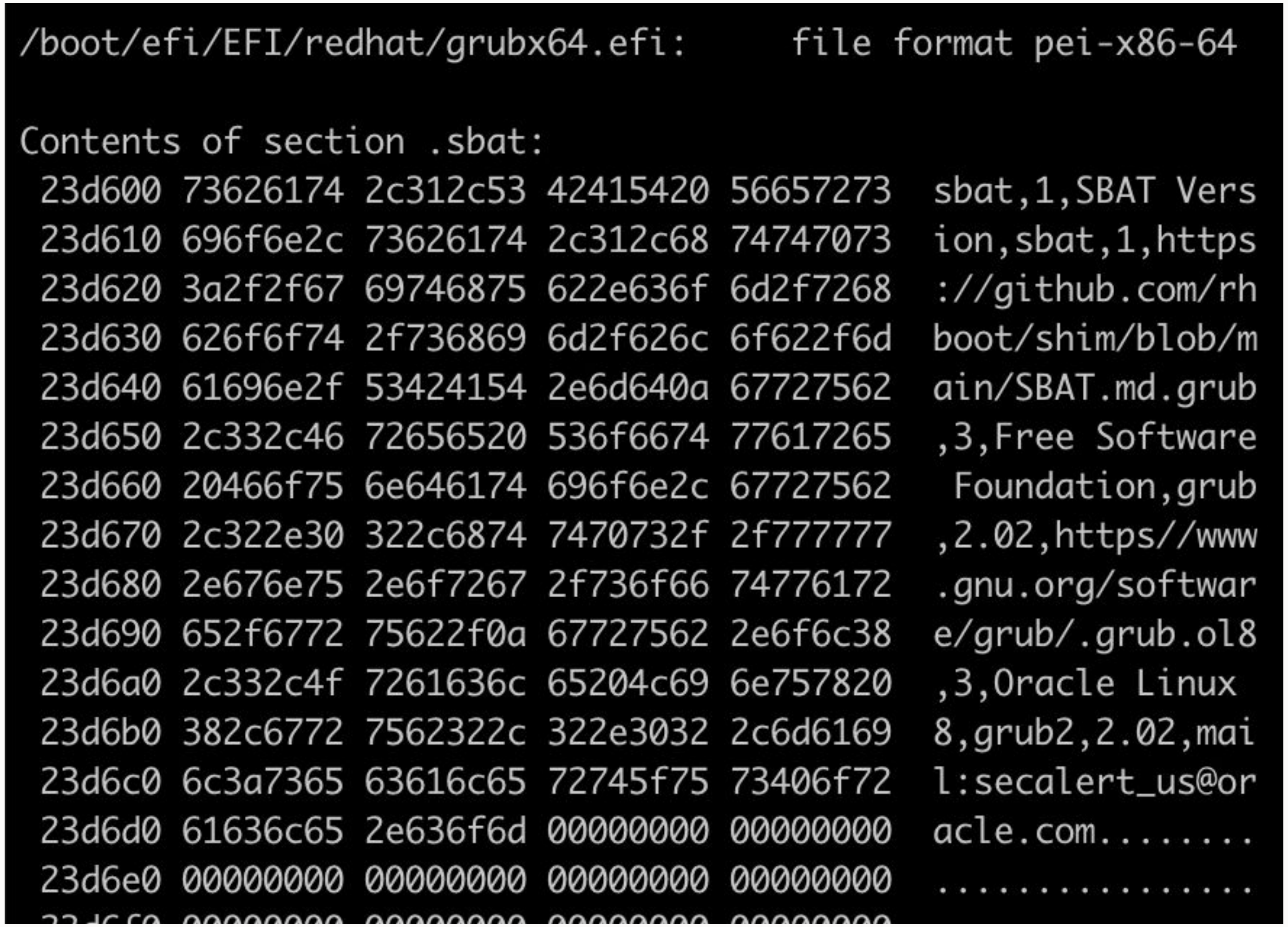
SBAT good practices and how to prevent locking yourself down

- What vendors need to take care of ?
- Integrity of boot stack
- Monitoring upstream development and CVE tracking
- stability/speed vs security
- good old secureboot is often not what we think it is
- userspace tools to work with SBAT
- TESTING(!)

SBAT good practices and how to prevent locking yourself down

- objdump -s -j .sbat <efi binary name> is your friend
- SecureBoot on/off is the ultimate driver for enforcement of SBAT
- mokutil and managing SBAT policies
- monitoring update flow for all distros on a multi-boot system
- embracing the future

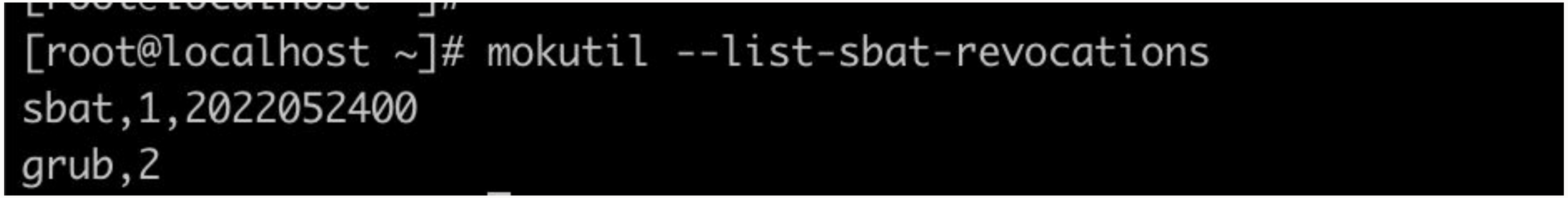
SBAT good practices and how to prevent locking yourself down



```
/boot/efi/EFI/redhat/grubx64.efi:     file format pei-x86-64

Contents of section .sbat:
 23d600 73626174 2c312c53 42415420 56657273  sbat,1,SBAT Vers
 23d610 696f6e2c 73626174 2c312c68 74747073  ion,sbat,1,https
 23d620 3a2f2f67 69746875 622e636f 6d2f7268  ://github.com/rh
 23d630 626f6f74 2f736869 6d2f626c 6f622f6d  boot/shim/blob/m
 23d640 61696e2f 53424154 2e6d640a 67727562  ain/SBAT.md.grub
 23d650 2c332c46 72656520 536f6674 77617265  ,3,Free Software
 23d660 20466f75 6e646174 696f6e2c 67727562   Foundation,grub
 23d670 2c322e30 322c6874 7470732f 2f777777  ,2.02,https//www
 23d680 2e676e75 2e6f7267 2f736f66 74776172  .gnu.org/softwar
 23d690 652f6772 75622f0a 67727562 2e6f6c38  e/grub/.grub.ol8
 23d6a0 2c332c4f 7261636c 65204c69 6e757820  ,3,Oracle Linux
 23d6b0 382c6772 7562322c 322e3032 2c6d6169  8,grub2,2.02,mai
 23d6c0 6c3a7365 63616c65 72745f75 73406f72  l:secalert_us@or
 23d6d0 61636c65 2e636f6d 00000000 00000000  acle.com........
 23d6e0 00000000 00000000 00000000 00000000  ................
```

SBAT good practices and how to prevent locking yourself down



```
[root@localhost ~]#
[root@localhost ~]# mokutil --list-sbat-revocations
sbat,1,2022052400
grub,2
```

Documentation and Useful links

1. Shim github repository
2. Shim SBAT documentation
3. shim review process
4. Mokutil SBAT policy control
5. Shim reference policy commit
6.

Thank you

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