

Debian GNU/Linux

安全合规之路

杨旭

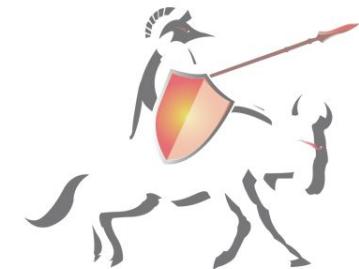
Day Job: 广州市腾御安信息科技有限公司

职位: 基础架构安全运维

Night Job: HardenedLinux 社区成员

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HardenedLinux

Why Debian ?



debian

- 众多的开发者
- 持续更新
- 良好的生态

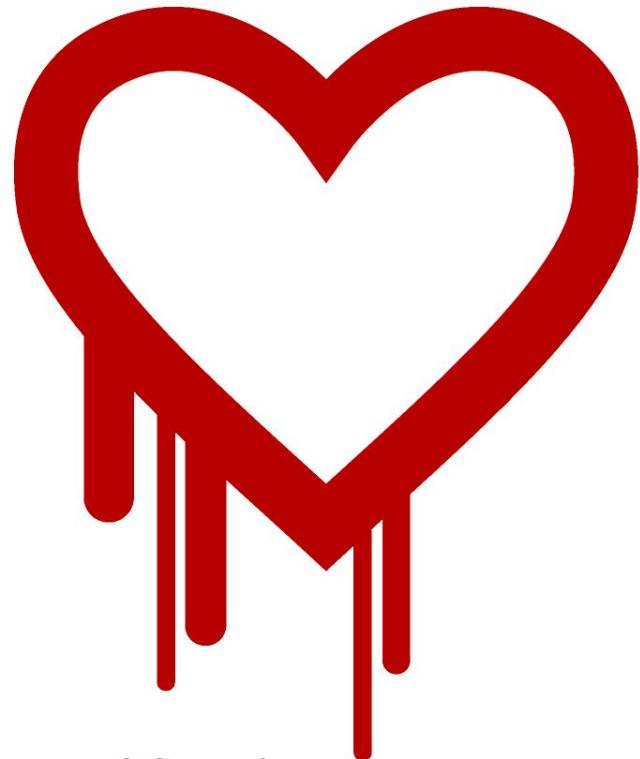


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Heartbleed



Fixing time: less than 30 mins



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Kernel

Debian Kernel maintainers: Ben Hutchings

Linux 3.2 kernel: since 2012-01-04

Frequency(avg): 2 fix a day, 2 weeks a release



Kernel

“If you are not using a stable/longterm kernel, your machine is insecure”

– Grey Kroah-Hartman



Kernel

“Debian is doing a awesome job. So a non-profit organization built volunteer people is doing a better job than some largest Linux provider. That's a shame.”

– Grey Kroah-Hartman



Kernel

“Base your software on Debian, or update
your kernel on time”

– Grey Kroah-Hartman



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Mempo

ReproducibleBuilds

MEMPO



+



+



TAKE ACTION NOW

Oppose NSA Mass Spying!

NSA image from eff.org

Mempo image from debian.org

Military

&

Intelligence

ASTRA LINUX

Linux 4.2 kernel

PaX kernel patch

Non-standard MAC

俄罗斯国密GOST

Military
&
Intelligence



CLIP



推动debian安全合规可能的选择

A large, white, lowercase "deepin" logo centered on a teal background.

deepin

1. Debian 系
2. "国产" GNU/Linux操作系统中最靠谱的厂商

Compliance?

STIG ?

RHEL

STIG

Security Technical Implementation Guides (STIGs)

RHEL

STIG





**BIG
BROTHER
IS
WATCHING**

严重等级

CAT I 对不合理配置的利用会直接并立即影响设备的机密性、可用性和完整性

CAT II 对不合理配置的利用可能影响设备的机密性、可用性和完整性

CAT III 存在不合理的配置会降低对设备机密性、可用性和完整性的保护

unsecure services: rsh, rexec, telnet, rlogin, ssh v1

secure package: check gpg key, no signature packages

data security: check insecure_locks

weak password: ssh, system-auth

check owner, group owner, group member, permissions:
gshadow, passwd, shadow, group, audit, /lib(64),
/usr/lib(64), (default System binaries), rsyslog_log
check firewall: ip(6)tables default policy, ipv4_forward,
enforce password: min-length, max expired day,
changing frequency

system authentication related:hash, uid, faillock
others: check mail systems, tuning auditd(disk_errors,
disk_full, etc), ssh lastlog, backup mechanism(OS, USER,
auditd_log), enforce connection of mobile devices

separate file system for: /var, /tmp, /var/log/audit,
/home/\$USER,

account related: PASS_WARN_AGE, pam_cracklib
(dcredit, maxrepeat, uppercase/lowercase alphabetic,
special character, difok, maxrepeat), expiration day,
INACTIVE

kernel tuning: martian packet, ICMP

auditd: attempts to alter system time, account, network, MAC, DAC, access files, setuid/setgid, file system mounts, files deletions, /etc/sudoers, others: cryptographically verify package, LUKS enable, ClientAliveInterval/ClientAliveCountMax/PermitUserEnvironment



STIG-4-Debian

项目地址: <https://github.com/hardenedlinux/STIG-4-Debian>

第一版完成时间: 28/06/2015



Thank to:

Pax/Grsecurity Community

Debian Community

RHEL STIG

Shawn C[a.k.a "citypw"]