The Linux Kernel

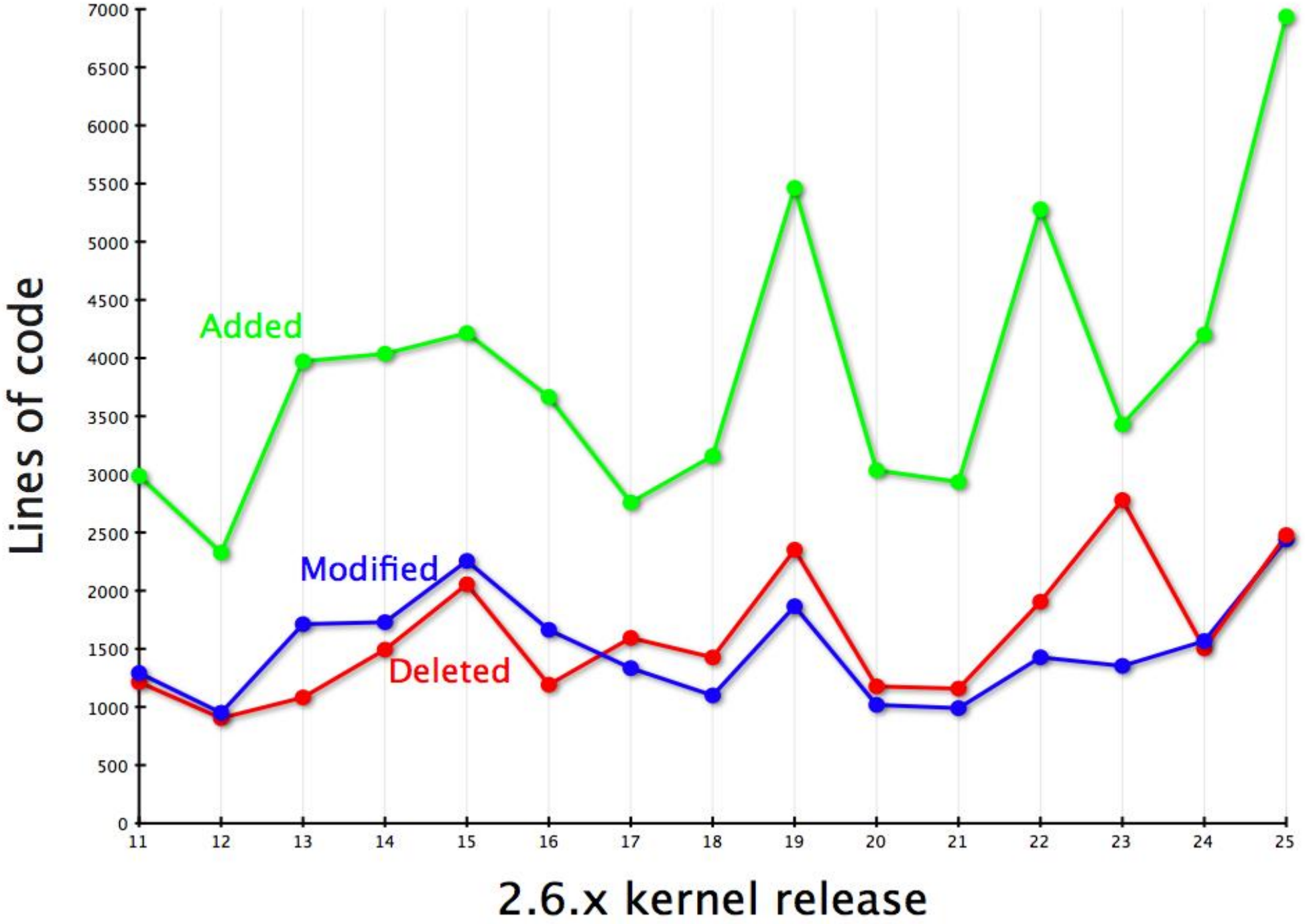
Who is developing it,
how they are doing it,
and why you should care

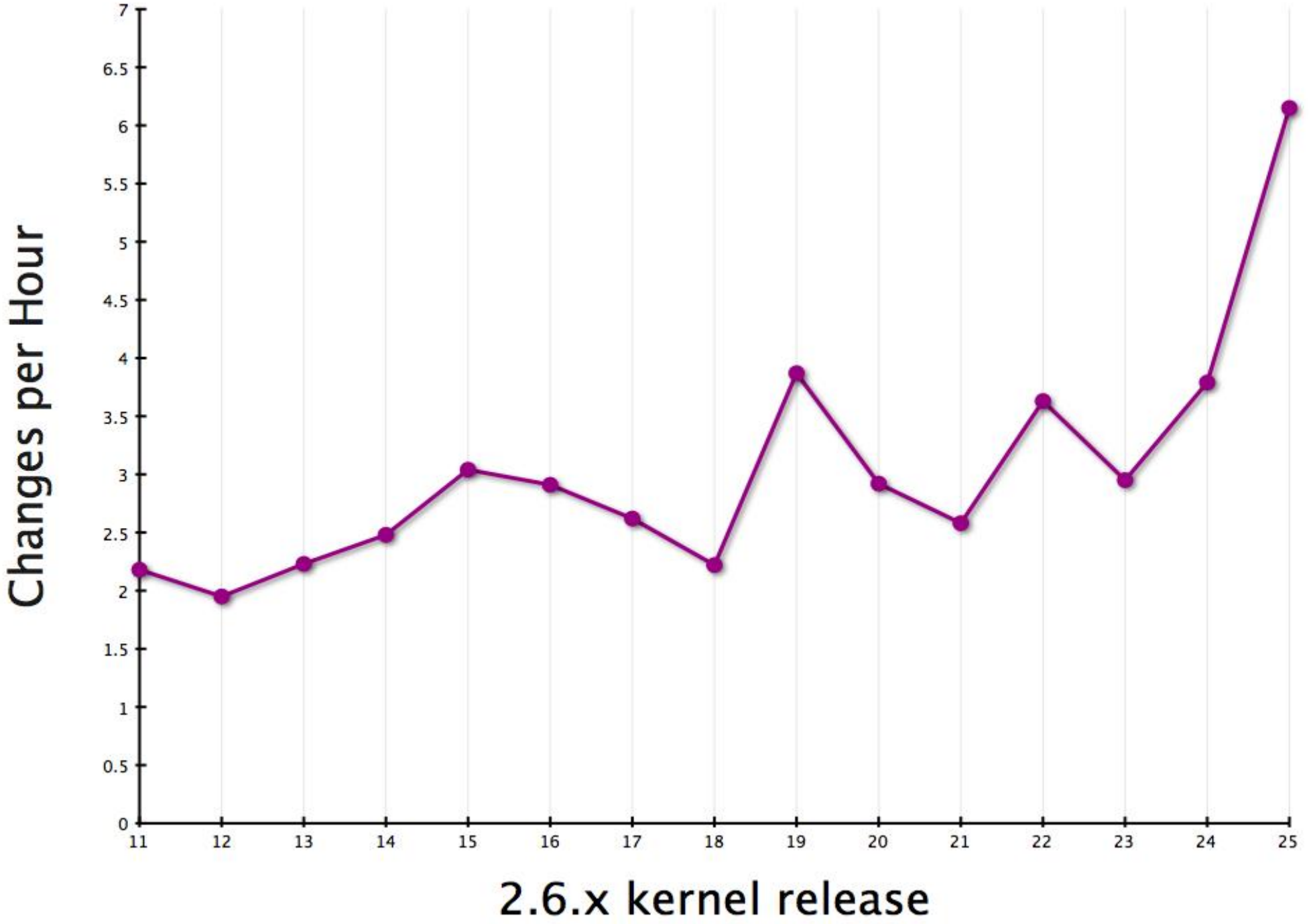
Greg Kroah-Hartman
SuSE Labs / Novell

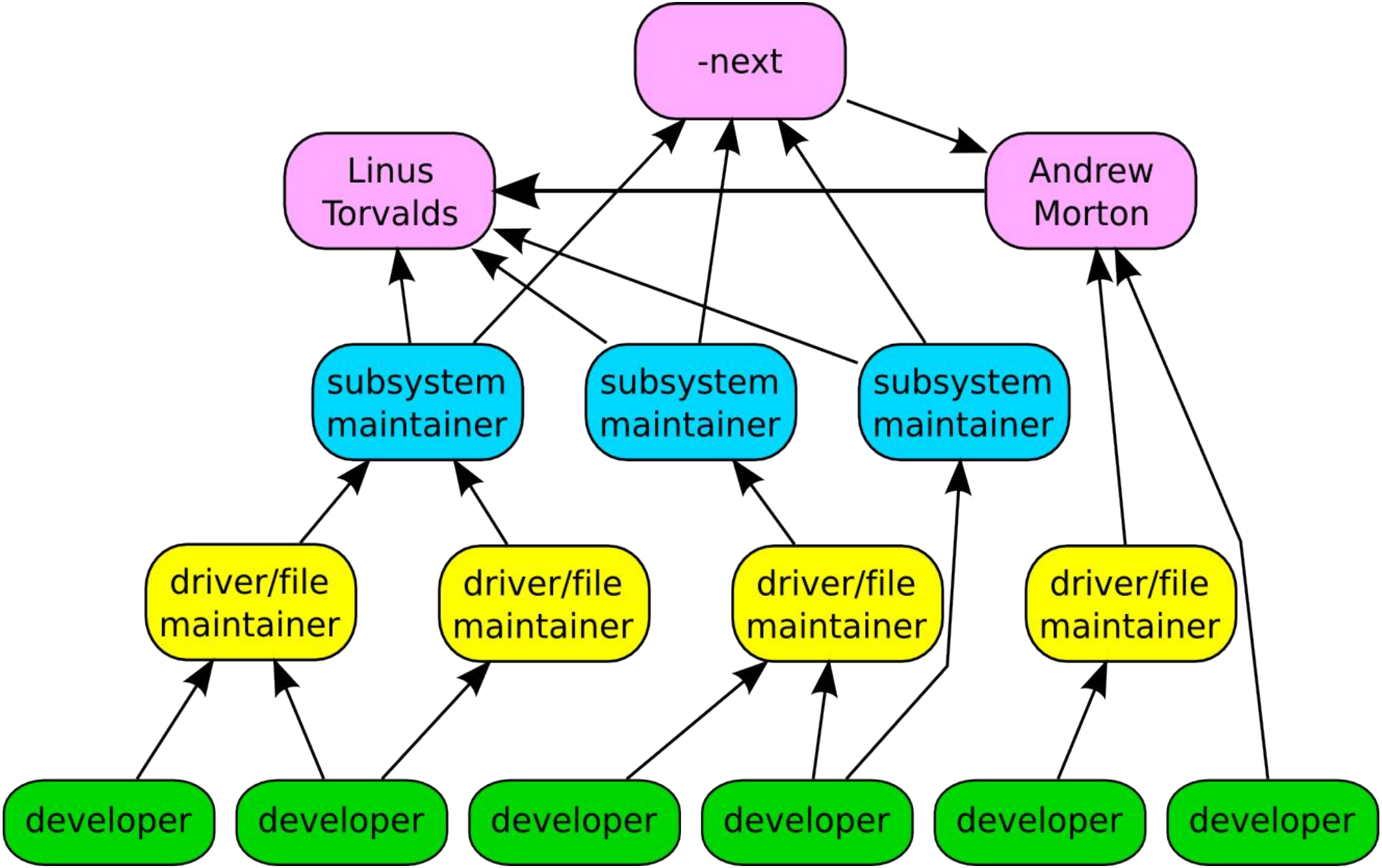
4,300 lines added
1,800 lines removed
1,500 lines modified

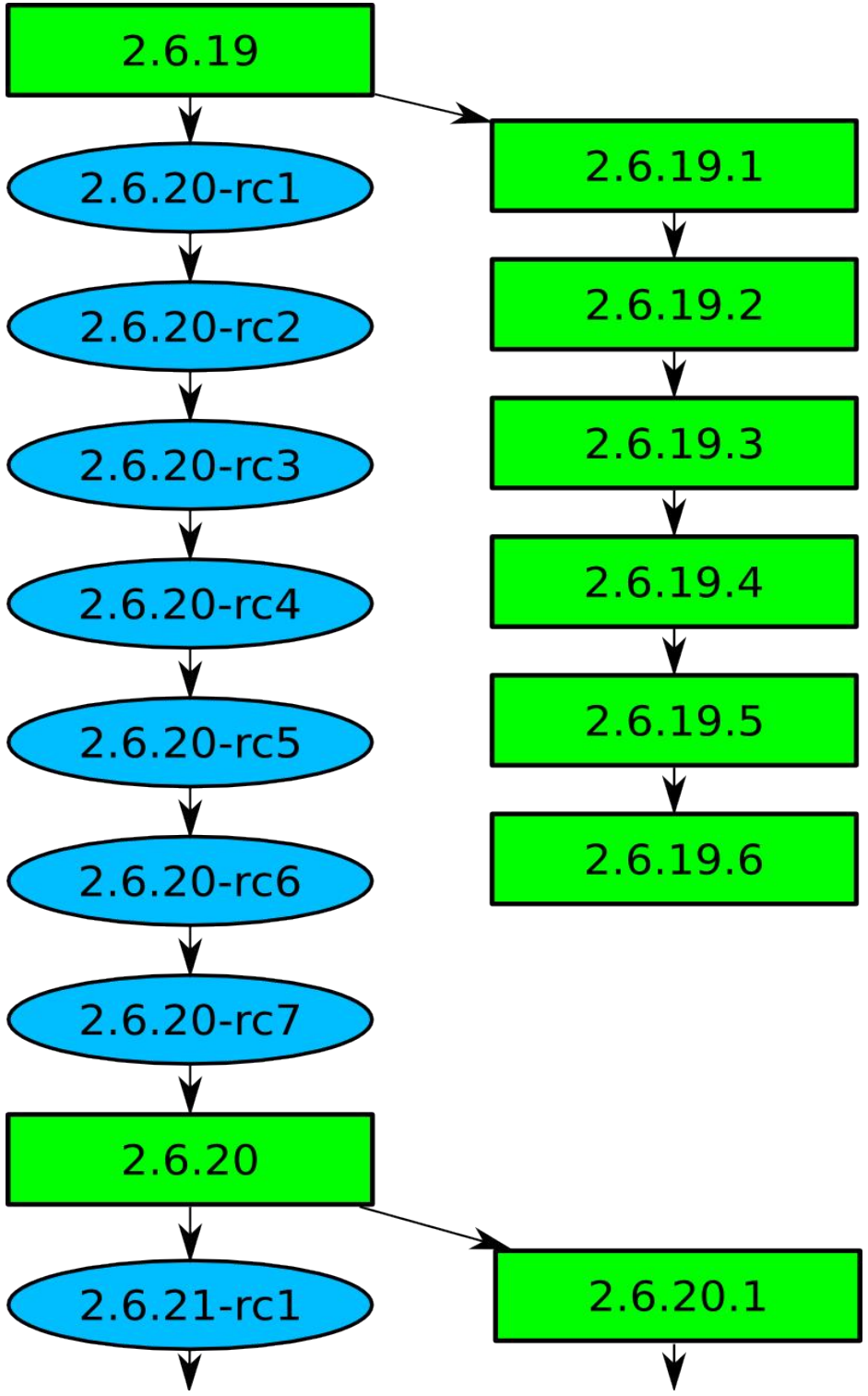
per day 2007 - 2008

3.69 changes per hour


Lines of code
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Added
Modified
Deleted
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
2.6.x kernel release


Changes per Hour
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
2.6.x kernel release


-next
Linus Torvalds
Andrew Morton
subsystem maintainer
subsystem maintainer
subsystem maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
driver/file maintainer
developer
developer
developer
developer
developer
developer


2.6.19
2.6.20-rc1
2.6.20-rc2
2.6.20-rc3
2.6.20-rc4
2.6.20-rc5
2.6.20-rc6
2.6.20-rc7
2.6.20
2.6.21-rc1
2.6.19.1
2.6.19.2
2.6.19.3
2.6.19.4
2.6.19.5
2.6.19.6
2.6.20.1

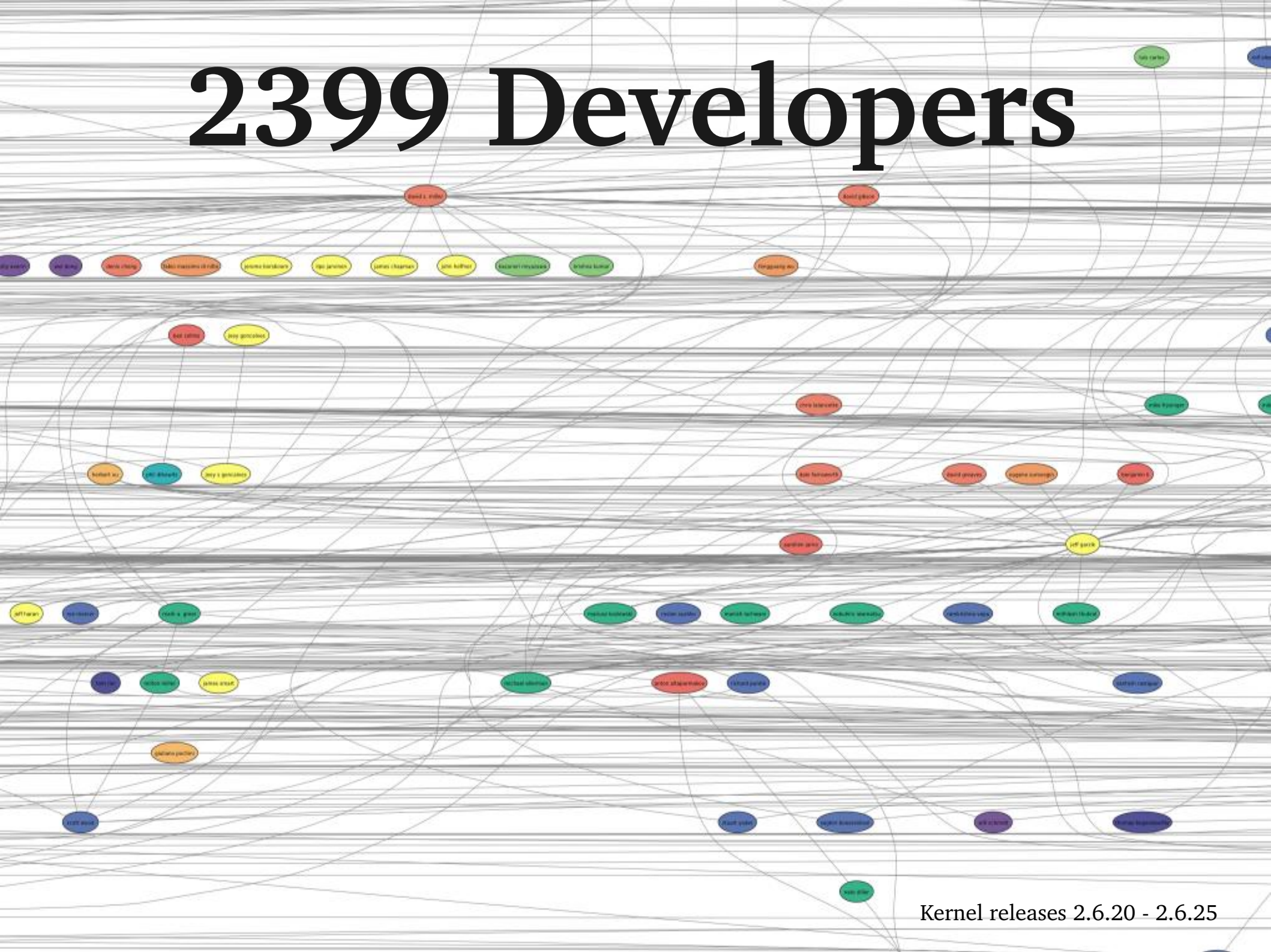
New release every
2¾ months

```
if (error)
        goto Error;

/* first, register with generic layer. */
kobject_set_name(&dev->kobj, "%s", dev->bus_id);
error = kobject_add(&dev->kobj);
if (error)
        goto Error;

/* notify platform of device entry */
if (platform_notify)
        platform_notify(dev);

/* notify clients of device entry (new way) */
if (dev->bus)
        blocking_notifier_call_chain(&dev->bus->bus_notifier,
                                     BUS_NOTIFY_ADD_DEVICE, dev);

error = device_create_file(dev, &uevent_attr);
if (error)
        goto attrError;

if (MAJOR(dev->devt)) {
        error = device_create_file(dev, &devt_attr);
        if (error)
                goto ueventattrError;
}

if (dev->class) {
        sysfs_create_link(&dev->kobj, &dev->class->subsys.kobj,
                          "subsystem");
        /* If this is not a "fake" compatible device, then create the
         * symlink from the class to the device. */
        if (dev->kobj.parent != &dev->class->subsys.kobj)
```

9.2 million lines

as of the 2.6.25 release

2399 Developers



Kernel releases 2.6.20 - 2.6.25

Top developers by quantity

Adrian Bunk	754
Al Viro	698
Thomas Gleixner	656
David S. Miller	655
Bart Zolnierkiewicz	637
Paul Mundt	610
Ralf Baechle	604
Ingo Molnar	596
Patrick McHardy	554
Tejun Heo	530

Kernel releases 2.6.20 - 2.6.25

Top Signed-off-by:

Andrew Morton	9086
Linus Torvalds	8960
David S. Miller	4926
Jeff Garzik	2960
Ingo Molnar	2489
Greg Kroah-Hartman	2098
Thomas Gleixner	1098
Mauro Carvalho Chehab	1822
Paul Mackerras	1675
John Linville	1461

Kernel releases 2.6.20 - 2.6.25

Who is funding this work?

1.		
2.	Red Hat	11.6%
3.	IBM	7.5%
4.	Novell	6.6%
5.		
6.	Intel	4.1%
7.	Oracle	2.2%
8.	Consultants	2.2%
9.	Academia	1.5%
10.	Renesas Technology	1.5%

Kernel releases 2.6.20 - 2.6.25

Who is funding this work?

1. “Amateurs”	18.5%
2. Red Hat	11.6%
3. IBM	7.5%
4. Novell	6.6%
5. Unknown individuals	5.5%
6. Intel	4.1%
7. Oracle	2.2%
8. Consultants	2.2%
9. Academia	1.5%
10. Renesas Technology	1.5%

Kernel releases 2.6.20 - 2.6.25

Who is funding this work?

...

13. Google 1.4%

Kernel releases 2.6.18 - 2.6.23-rc8

Without Andrew

...

40. Google

Kernel releases 2.6.18 - 2.6.23-rc8

27 Google employees
contributed to the kernel
in 2007-2008
Kernel releases 2.6.20 - 2.6.25

Google employee contributions

11.	Andrew Morton	507
149.	David Rientjes	67
324.	Paul Menage	24
398.	Ken Chen	18
658.	Matt LaPlante	7
770.	Aaron Durbin	5
770.	Oleg Ryjkov	5
852.	Tim Hockin	4
958.	Martin Bligh	3
958.	Suleiman Souhlal	3

Google employee contributions

1127. Arve Hjønnevåg 2
1127. Brian Swetland 2
1127. Gwendal Grignou 2
1417. Al Borchers 1
1417. David Smith 1
1417. Ethan Solomita 1
1417. Jeff Bailey 1
1417. Joshua Wise 1
1417. Maciej Zenczykowski 1

Google employee contributions

1417. Masoud Asgharifard Sharbiani 1
1417. Mike Chan 1
1417. Ollie Wild 1
1417. Priyanka Gupta 1
1417. Ranjit Manomohan 1
1417. Rohit Seth 1
1417. Sam Jansen 1
1417. Warren Turkal 1

New stuff in 2.6.26

Korina driver
superH MX-G
SH-MobileR2 CPU support
Solution Engine SH7721
ARM YL9200
Kwikbyte KB9260
Olimex SAM9-L9260
emQbit ECB_AT91
Digi ns921x processor
Nias SMX crypto
AMCC PPC460EX
Emerson KSI8560
WindRiver SBC8641D
Logitech Rumblepad 2
Renesas SH7760 I2c
SuperH Mobile I2C
PCI Express ASPM
security= boot option
NAT for SCTP, SCCP and UDP-lite
network window scaling w/ syncookies
network namespace work
mesh networking for mac80211
SELinux permisive types
realtime group scheduler work
SunOS binary support removed
read-only bind mounts
kbdb
PAT for x86
inode_getsecid()
ipc_getsecid()
ieee80211 MAC removed
generic semaphores
ata_port_operations inheritance
ns_to_ktime()
struct class_device removed
SEQ_SKIP allowed from show()
Wolfson WM9713 codecs
TI DAVINCI AC97
Emagic Audiowerk 2
x86 PC speakers
Asus AV100 (Xonar DX)
Micron MT9M001
Micron MT9V022
PXA27x Quick Capture
Kworld ATSC 120 tuners
cx23417 MPEG encoders
Integrant ITD1000 tuners
Philips TDA10048HN demodulators
Philips SAA7171/3/4 a/v decoders
Auvitek AU8522 demodulators
Samsung S5H1411-based tuners
Xen framebuffer
Xen keyboard
Xen mouse
Wolfson Microelectronics touchscreens
wireless Xbox 360 controller
Zhen Hua PPM-4CH transmitters
SPCP8x5 USB to serial
NCR 53c9x SCSI controller
Freescale 8610 and 5121 display
Intel 965G/965GM
TI OMAP sound controller
Eee PC function keys
Intel IXP4xx Ethernet
basic braille screen reader support
OLPC XO architecture support
virtual files in /proc/pid/mountinfo
/proc/vmallocinfo
NUMA for SPARC Niagra
Xen baloon driver
/dev/mem support removed
KVM for s390
KVM for PowerPC 440
KVM for ia64
perprocess secure bits
getrusage() RUSAGE_THREAD
partions with NBD
audit open file tests
/sys/class/bdi
shared writable mappings for FUSE
ioremap() always uncached on x86
/sys/kernel/slab/NAME/order
WARN_ON taints kernel
get_info() for /proc removed
proc_create_data()
object debugging infrastructure
Solarflare Comm Solarstorm SFC4000
Hauppauge HVR-1600 TV tuner card
WTF are you doing reading this
ISP 1760 USB host controller
Cypress c67x00 OTG controller
Intel PXA 27x USB controller
DEFINE_KLIST()
KLIST_INIT()
klist_add_after()
klist_add_before()
div_u64 and friends
sysfs_streq
MODULE_FORCE_LOAD