47,000 files
18,900,000 lines

Kernel release 3.17.0

3,483 developers
439 companies

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8,300 lines added
4,650 lines removed
1,900 lines modified

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8,300 lines added
4,650 lines removed
1,900 lines modified

Every Day

Kernel releases 3.12.0 – 3.17.0
November 2013 – October 2014

7.8 changes per hour

Kernel releases 3.12.0 – 3.17.0
November 2013 – October 2014

9.5 changes per hour

3.16 release

Notable Changes

btrfs offline
AMD Radeon boost
GPU switching
separate GPU device nodes
timerless multiasking
RAID5 multithreading
lockref
better OOM
XFS recursion
tty lock rework
IPC lock rework
seqlock
idr
inittmpfs
restricted sysfs
Cachefiles
soft module dependancies
aio ring page migration
aio deferred completion
fair zone allocator
hugepage node migration
ssd block allocation

swap per-cpu allocation
swap discard async
detect hybrid MBRs
dm cache block size limits
btrfs compressed extents
btrfs UUID rework
ext4 pre-cacheing
ext4 external journal
ext4 corrupt marking
ext3 external journal
xfs object readahead
f2fs inline xattrs
f2fs garbage control
pstore compression
pstore decompression
pstore extensions
ceph punch hole
hfs ACLS
isofs RW rework
udf RW rework
TCP_NOTSENT_LOWAT
TSO autosizing

tcp_syncookies
tcp throughput increase
TS-ECR for RTT
use RTT for RTO
ipv6 UDP tunnel segment
ipv6 RFC 6980 & 3810
bridge multicast snoop
macvland fdb
physical port sysfs
igmp unsolicited report
tcp_probe ipv6
netfilter ipv6 SYNPROXY
reduced txpower 5/10Mhz
5/10Mhz scanning IBSS
openvswitch SCTP
pkt_sched fair queueing
usbnet USB3 throughput
OMAP SHAM
OMAP SHA384/SHA512
NEON XOR
vfio-pci hot reset
64bit PV guest NMIs

3.12 release

Faster low-level locks

3.13 release

nftables

3.14 release

Antibufferbloat packet scheduler

3.15 release
Faster resume

3.16 release

CONFIG_USB_DEBUG

3.16 release

32bit VDSO on 64bit

3.17 release

File sealing - memfd

3.18 release
unionfs

Sometime in 2014

3.18 release

Major network speedup

future release?

Live kernel patching

future release?

kdbus

future release?

kselftests

future release?

O_BENEATH

Sometime in 2015

future release?

cgroup namespaces

Sometime in 2015

Who is funding this work?

1.	Intel	10.6%
2.	"Amateurs"	10.3%
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Who is funding this work?

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Kernel releases 3.12.0 – 3.17.0