

## TERMINAL LOGCAT RESULTS

04-20 18:24:29.583 17664 17664 I MTEBenchmarking: Original pointer is 0x76e9060000

04-20 18:24:29.583 17664 17664 I MTEBenchmarking: Pointer with new tag is

0x2000076e9060000

04-20 18:24:29.583 17664 17664 I MTEBenchmarking: Tag at 0x2000076e9060000 is

2000076e9060000

04-20 18:24:29.583 1618 4007 D ActivityManager: sync unfroze 5627

com.android.hotwordenrollment.xgoogle for 19

04-20 18:24:29.584 1618 4007 D ActivityManager: sync unfroze 5821

com.android.intentresolver for 19

04-20 18:24:29.584 1618 4007 D ActivityManager: sync unfroze 5874

com.android.managedprovisioning for 19

04-20 18:24:29.584 1618 4007 D ActivityManager: sync unfroze 5906

com.android.omadm.service for 19

04-20 18:24:29.585 1618 4007 D ActivityManager: sync unfroze 5948 com.android.shell for 19

04-20 18:24:29.585 1618 4007 D ActivityManager: sync unfroze 5988

com.google.android.apps.camera.services for 19

04-20 18:24:29.586 1618 4007 D ActivityManager: sync unfroze 6490

com.android.chrome:sandboxed\_process0:org.chromium.content.app.SandboxedProcessServic e0:0 for 19

04-20 18:24:29.586 1618 4007 D ActivityManager: sync unfroze 5384

com.android.imsserviceentitlement for 19

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04-20 18:24:29.586 920 16483 D statsd : ShellSubscriberClient: adding matcher for pulled
atom 10002
04-20 18:24:29.586 920 16483 D statsd : ShellSubscriberClient: adding matcher for pulled
atom 10000
04-20 18:24:29.586 1618 4007 D ActivityManager: sync unfroze 5487
com.google.android.wfcactivation for 19
04-20 18:24:29.587 1618 4007 D ActivityManager: sync unfroze 6644
com.google.android.packageinstaller for 19
04-20 18:24:29.587 1618 4007 D ActivityManager: sync unfroze 6765
com.google.android.uvexposurereporter for 19
04-20 18:24:29.588 1618 4007 D ActivityManager: sync unfroze 2171
com.google.android.flipendo for 19
04-20 18:24:29.588 1618 4007 D ActivityManager: sync unfroze 5736
com.google.android.apps.maps for 19
04-20 18:24:29.591 1618 4007 D ActivityManager: sync unfroze 3037 com.google.euiccpixel
for 19
04-20 18:24:29.591 1618 4007 D ActivityManager: sync unfroze 4386
com.google.omadm.trigger for 19
04-20 18:24:29.591 1618 4007 D ActivityManager: sync unfroze 6553
com.google.android.hardwareinfo for 19
04-20 18:24:29.592 1618 4007 D ActivityManager: sync unfroze 6808
com.google.pixel.livewallpaper for 19
04-20 18:24:29.592 1618 4007 D ActivityManager: sync unfroze 6598
com.google.android.apps.pixel.support for 19
04-20 18:24:29.592 1618 4007 D ActivityManager: sync unfroze 7325
com.google.android.videos for 19
04-20 18:24:29.593 1618 4007 D ActivityManager: sync unfroze 8021
com.google.android.apps.pixel.dcservice for 19
04-20 18:24:29.593 1618 4007 D ActivityManager: sync unfroze 9203
com.google.android.apps.wearables.maestro.companion for 19
04-20 18:24:29.593 1618 4007 D ActivityManager: sync unfroze 9244
com.google.android.apps.accessibility.voiceaccess for 19
04-20 18:24:29.593 1618 4007 D ActivityManager: sync unfroze 3464
com.google.android.devicelockcontroller for 19
04-20 18:24:29.594 1618 4007 D ActivityManager: sync unfroze 3063 .ShannonImsService for
19
04-20 18:24:29.594 1618 4007 D ActivityManager: sync unfroze 5113
com.android.providers.calendar for 19
04-20 18:24:29.594 1618 4007 D ActivityManager: sync unfroze 5429
com.google.android.apps.carrier.carrierwifi for 19
04-20 18:24:29.595 1618 4007 D ActivityManager: sync unfroze 5162
com.google.android.apps.docs for 19
04-20 18:24:29.595 1618 4007 D ActivityManager: sync unfroze 5406
com.google.RilConfigService for 19
```

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04-20 18:24:29.595 1618 4007 D ActivityManager: sync unfroze 9935
com.android.vending:quick_launch for 19
04-20 18:24:29.596 1618 4007 D ActivityManager: sync unfroze 5154
com.google.android.apps.weather for 19
04-20 18:24:29.596 1618 4007 D ActivityManager: sync unfroze 6359
com.google.android.apps.work.oobconfig for 19
04-20 18:24:29.596 1618 4007 D ActivityManager: sync unfroze 4332
com.google.android.apps.wallpaper for 19
04-20 18:24:29.596 1618 4007 D ActivityManager: sync unfroze 6399
com.google.android.configupdater for 19
04-20 18:24:29.597 1618 4007 D ActivityManager: sync unfroze 11116
com.google.android.googleguicksearchbox:train for 19
04-20 18:24:29.597 1618 4007 D ActivityManager: sync unfroze 3454
com.google.android.carrier for 19
04-20 18:24:29.597 1618 4007 D ActivityManager: sync unfroze 6263
com.android.chrome:privileged process0 for 19
04-20 18:24:29.597 1618 4007 D ActivityManager: sync unfroze 4348 com.android.chrome for
19
04-20 18:24:29.598 1618 4007 D ActivityManager: sync unfroze 7103
com.google.android.calendar for 19
04-20 18:24:29.598 1618 4007 D ActivityManager: sync unfroze 4838
com.google.android.deskclock for 19
04-20 18:24:29.599 1618 4007 D ActivityManager: sync unfroze 3478
com.google.android.apps.dreamliner for 19
04-20 18:24:29.599 1618 4007 D ActivityManager: sync unfroze 6712
com.google.android.setupwizard for 19
04-20 18:24:29.599 1618 4007 D ActivityManager: sync unfroze 6055
com.google.android.apps.carrier.log for 19
04-20 18:24:29.600 1618 4007 D ActivityManager: sync unfroze 9179 com.google.ar.core for
19
04-20 18:24:29.600 1618 4007 D ActivityManager: sync unfroze 5053
com.google.android.projection.gearhead:shared for 19
04-20 18:24:29.600 1618 4007 D ActivityManager: sync unfroze 6853
com.google.android.apps.restore for 19
04-20 18:24:29.600 1618 4007 D ActivityManager: sync unfroze 13515
com.google.android.marvin.talkback for 19
04-20 18:24:29.601 1618 4007 D ActivityManager: sync unfroze 3614
com.google.android.youtube for 19
04-20 18:24:29.601 1618 4007 D ActivityManager: sync unfroze 6222
com.google.android.apps.setupwizard.searchselector for 19
04-20 18:24:29.602 1618 4007 D ActivityManager: sync unfroze 13554
com.google.android.gm for 19
04-20 18:24:29.602 1618 4007 D ActivityManager: sync unfroze 6917 com.google.android.tts
for 19
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for 19
04-20 18:24:29.603 1618 4007 D ActivityManager: sync unfroze 4993
com.google.android.dialer for 19
04-20 18:24:29.603 1618 4007 D ActivityManager: sync unfroze 3620
com.google.process.gapps for 19
04-20 18:24:29.603 1618 4007 D ActivityManager: sync unfroze 6320
com.google.android.apps.turbo:ssb for 19
04-20 18:24:29.604 1618 4007 D ActivityManager: sync unfroze 6168
com.google.android.apps.nbu.files for 19
04-20 18:24:29.604 1618 4007 D ActivityManager: sync unfroze 5923
com.google.android.projection.gearhead:provider for 19
04-20 18:24:29.604 1618 4007 D ActivityManager: sync unfroze 6078
com.google.android.projection.gearhead:car for 19
04-20 18:24:29.604 1618 4007 D ActivityManager: sync unfroze 4063
com.google.android.apps.tachyon for 19
04-20 18:24:29.605 1618 4007 D ActivityManager: sync unfroze 4803
com.google.android.rkpdapp for 19
04-20 18:24:29.605 1618 4007 D ActivityManager: sync unfroze 5265 com.android.angle for
19
04-20 18:24:29.605 1618 4007 D ActivityManager: sync unfroze 4515 com.android.traceur for
19
04-20 18:24:29.606 1618 4007 D ActivityManager: sync unfroze 8066
com.google.android.accessibility.switchaccess for 19
04-20 18:24:29.606 1618 4007 D ActivityManager: sync unfroze 13459
com.google.android.apps.safetyhub for 19
04-20 18:24:29.606 1618 4007 D ActivityManager: sync unfroze 8085
com.google.android.apps.privacy.wildlife:projection for 19
04-20 18:24:29.607 1618 4007 D ActivityManager: sync unfroze 8069
com.google.android.apps.pixel.support:projection for 19
04-20 18:24:29.607 1618 4007 D ActivityManager: sync unfroze 2724
com.google.android.cellbroadcastreceiver for 19
04-20 18:24:29.607 1618 4007 D ActivityManager: sync unfroze 6573
com.google.android.healthconnect.controller for 19
04-20 18:24:29.608 1618 4007 D ActivityManager: sync unfroze 8230
com.google.android.projection.gearhead:projection for 19
04-20 18:24:29.608 1618 4007 D ActivityManager: sync unfroze 15273
com.google.android.as.oss:learning bg for 19
04-20 18:24:29.608 1618 4007 D ActivityManager: sync unfroze 4707
com.google.android.apps.work.clouddpc for 19
04-20 18:24:29.609 1618 4007 D ActivityManager: sync unfroze 7395
com.google.android.apps.privacy.wildlife for 19
04-20 18:24:29.609 1618 4007 D ActivityManager: sync unfroze 3589
com.google.android.apps.youtube.music for 19
```

04-20 18:24:29.602 1618 4007 D ActivityManager: sync unfroze 4617 android.process.media

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04-20 18:24:29.610 1618 4007 D ActivityManager: sync unfroze 4623
com.google.android.gms.unstable for 19
04-20 18:24:29.610 1618 4007 D ActivityManager: sync unfroze 8173
com.google.android.gms.ui for 19
04-20 18:24:29.610 1618 4007 D ActivityManager: sync unfroze 13638 android.process.acore
for 19
04-20 18:24:29.611 1618 4007 D ActivityManager: sync unfroze 3545
com.google.android.adservices.api for 19
04-20 18:24:29.611 1618 4007 D ActivityManager: sync unfroze 14916
com.google.process.gservices for 19
04-20 18:24:29.611 1618 4007 D ActivityManager: sync unfroze 8582
com.android.vending:instant app installer for 19
04-20 18:24:29.612 1618 4007 D ActivityManager: sync unfroze 4299
com.google.android.partnersetup for 19
04-20 18:24:29.612 1618 4007 D ActivityManager: sync unfroze 7042
com.google.android.apps.turbo:aab for 19
04-20 18:24:29.612 1618 4007 D ActivityManager: sync unfroze 16768 com.topjohnwu.magisk
for 19
04-20 18:24:29.612 1618 4007 D ActivityManager: sync unfroze 15244
com.google.android.as.oss for 19
04-20 18:24:29.613 1618 4007 D ActivityManager: sync unfroze 7928
com.google.android.turboadapter for 19
04-20 18:24:29.613 1618 4007 D ActivityManager: sync unfroze 4181
com.google.android.apps.photos for 19
04-20 18:24:29.614 1618 4007 D ActivityManager: sync unfroze 3533 com.android.keychain
for 19
04-20 18:24:29.614 1618 4007 D ActivityManager: sync unfroze 4747
com.android.vending:background for 19
04-20 18:24:29.615 1618 4007 D ActivityManager: sync unfroze 14248
com.google.android.odad for 19
04-20 18:24:29.615 1618 4007 D ActivityManager: sync unfroze 2194
com.google.android.permissioncontroller for 19
04-20 18:24:29.615 1618 4007 D ActivityManager: sync unfroze 10563
com.google.android.gms for 19
04-20 18:24:29.616 1618 4007 D ActivityManager: sync unfroze 10878 com.android.vending
for 19
04-20 18:24:29.617 1618 4007 D ActivityManager: sync unfroze 14865
com.google.android.googleguicksearchbox:search for 19
04-20 18:24:29.618 1618 4007 D ActivityManager: sync unfroze 13057
com.google.android.apps.wellbeing for 19
04-20 18:24:29.618 1618 4007 D ActivityManager: sync unfroze 7077
com.google.android.apps.turbo for 19
```

04-20 18:24:29.618 16014 16392 D studio.transport: Running '/system/bin/am get-current-user'

- 04-20 18:24:29.618 1618 4007 D ActivityManager: sync unfroze 3940
- com.google.android.apps.messaging for 19
- 04-20 18:24:29.619 1618 4007 D ActivityManager: sync unfroze 5666 com.google.android.apps.gcs for 19
- 04-20 18:24:29.620 1618 4007 D ActivityManager: sync unfroze 6668 com.google.android.settings.intelligence for 19
- 04-20 18:24:29.620 1618 4007 D ActivityManager: sync unfroze 15352 com.android.settings for 19
- 04-20 18:24:29.639 1618 4007 D ActivityManager: freezer override set to false
- 04-20 18:24:29.664 9935 9959 I Finsky:quick\_launch: [50] nbw.run(409): Stats for Executor: bgExecutor pdc@9601cff[Running, pool size = 4, active threads = 0, queued tasks = 0, completed tasks = 20]
- 04-20 18:24:29.664 9935 9959 I Finsky:quick\_launch: [50] nbw.run(409): Stats for Executor: LightweightExecutor pdc@2fc3acc[Running, pool size = 4, active threads = 0, queued tasks = 0, completed tasks = 10]
- 04-20 18:24:29.665 9935 9959 I Finsky:quick\_launch: [50] nbw.run(409): Stats for Executor: BlockingExecutor pdc@5176115[Running, pool size = 0, active threads = 0, queued tasks = 0, completed tasks = 1]
- 04-20 18:24:29.704 17664 17664 I MTEBenchmarking: Tag at 0x2000076e9060000 after swap is 2000076e9060000
- 04-20 18:24:29.722 17664 17664 D CompatibilityChangeReporter: Compat change id reported: 237531167; UID 10271; state: DISABLED
- 04-20 18:24:29.724 10878 10878 I Finsky : [2] vlb.onTrimMemory(11): Memory trim requested to level 40
- 04-20 18:24:29.724 10878 10878 I Finsky : [2] vla.accept(91): Flushing in-memory image cache
- 04-20 18:24:29.742 1618 4007 D CoreBackPreview: Window{1ab7011 u0 com.example.mtestudy\_benchmarking/com.example.mtestudy\_benchmarking.MainActivity}: Setting back callback
- OnBackInvokedCallbackInfo{mCallback=android.window.IOnBackInvokedCallback\$Stub\$Proxy @ba1302, mPriority=0, mIsAnimationCallback=false}

## **SWAP SPACE ANALYSIS 1**

**BEFORE** 

SwapCached: 498260 kB

SwapTotal: 3767060 kB SwapFree: 2322600 kB

shiba:/ # cat /proc/meminfo | grep Swap

**DURING 1** 

SwapCached: 498256 kB

SwapTotal: 3767060 kB SwapFree: 2322600 kB

shiba:/# cat /proc/meminfo | grep Swap

**DURING 2** 

SwapCached: 498256 kB

SwapTotal: 3767060 kB SwapFree: 2322600 kB

**DURING 3** 

SwapCached: 498256 kB

SwapTotal: 3767060 kB SwapFree: 2322600 kB

AFTER 1

SwapCached: 498256 kB

SwapTotal: 3767060 kB SwapFree: 2322604 kB

AFTER 2

SwapCached: 498256 kB

SwapTotal: 3767060 kB SwapFree: 2322604 kB **BEFORE** 

MemFree: 664972 kB MemAvailable:2470876 kB Buffers: 2928 kB Cached: 2500344 kB

SwapCached: 498256 kB

Active: 1679784 kB Inactive: 2367224 kB Active(anon): 239984 kB Inactive(anon): 1624036 kB Active(file): 1439800 kB Inactive(file): 743188 kB Unevictable: 270608 kB Mlocked: 270608 kB SwapTotal: 3767060 kB SwapFree: 2322604 kB

Dirty: 0 kB

Writeback: 0 kB AnonPages: 1345592 kB Mapped: 1211480 kB Shmem: 55804 kB

KReclaimable: 208448 kB

Slab: 544336 kB

SReclaimable: 156012 kB

SUnreclaim: 388324 kB KernelStack: 94624 kB ShadowCallStack: 0 kB PageTables: 208040 kB SecPageTables: 0 kB NFS\_Unstable: 0 kB Bounce: 0 kB WritebackTmp: 0 kB CommitLimit: 7321644 kB Committed AS: 455017616 kB VmallocTotal: 259653632 kB VmallocUsed: 260236 kB VmallocChunk: 0 kB

Percpu: 14040 kB
AnonHugePages: 0 kB

ShmemHugePages: 0 kB ShmemPmdMapped: 0 kB

FileHugePages: 0 kB FilePmdMapped: 0 kB 

 CmaTotal:
 708608 kB

 CmaFree:
 0 kB

 ION\_heap:
 281628 kB

ION\_heap\_pool: 52436 kB

### **DURING**

MemTotal: 7534128 kB
MemFree: 630656 kB
MemAvailable:2436032 kB
Cached: 2499844 kB

SwapCached: 498256 kB

Active: 1679792 kB Inactive: 2400308 kB Active(anon): 239988 kB Inactive(anon): 1657664 kB Active(file): 1439804 kB Inactive(file): 742644 kB Unevictable: 270608 kB Mlocked: 270608 kB SwapTotal: 3767060 kB SwapFree: 2322604 kB

Dirty: 20 kB

Writeback: 0 kB AnonPages: 1379332 kB Mapped: 1213884 kB Shmem: 55844 kB

KReclaimable: 208468 kB

Slab: 544528 kB

SReclaimable: 156032 kB

SUnreclaim: 388496 kB KernelStack: 95280 kB ShadowCallStack: 0 kB PageTables: 209456 kB SecPageTables: 0 kB NFS Unstable: 0 kB Bounce: 0 kB WritebackTmp: 0 kB CommitLimit: 7321644 kB Committed AS: 457389200 kB VmallocTotal: 259653632 kB VmallocUsed: 260988 kB

VmallocChunk: 0 kB Percpu: 14040 kB AnonHugePages: 0 kB

ShmemHugePages: 0 kB ShmemPmdMapped: 0 kB

FileHugePages: 0 kB
FilePmdMapped: 0 kB
CmaTotal: 708608 kB
CmaFree: 0 kB
ION\_heap: 281628 kB

ION\_heap\_pool: 52436 kB

shiba:/#

#### **AFTER**

shiba:/# cat /proc/meminfo

MemTotal: 7534128 kB MemFree: 661836 kB MemAvailable:2467112 kB Buffers: 2928 kB Cached: 2499804 kB

SwapCached: 498256 kB

Active: 1679864 kB Inactive: 2369956 kB Active(anon): 239984 kB Inactive(anon): 1627388 kB Active(file): 1439880 kB Inactive(file): 742568 kB Unevictable: 270608 kB Mlocked: 270608 kB SwapTotal: 3767060 kB 2322604 kB SwapFree:

Dirty: 0 kB

Writeback: 0 kB AnonPages: 1348860 kB Mapped: 1211480 kB Shmem: 55804 kB

KReclaimable: 208272 kB

Slab: 544132 kB

SReclaimable: 155836 kB

SUnreclaim: 388296 kB
KernelStack: 94684 kB
ShadowCallStack: 0 kB
PageTables: 208232 kB
SecPageTables: 0 kB
NFS\_Unstable: 0 kB

Bounce: 0 kB
WritebackTmp: 0 kB
CommitLimit: 7321644 kB
Committed\_AS: 455018084 kB
VmallocTotal: 259653632 kB
VmallocUsed: 260300 kB

VmallocChunk: 0 kB Percpu: 14040 kB AnonHugePages: 0 kB

ShmemHugePages: 0 kB ShmemPmdMapped: 0 kB

FileHugePages: 0 kB FilePmdMapped: 0 kB CmaTotal: 708608 kB CmaFree: 36 kB ION\_heap: 281628 kB

ION\_heap\_pool: 52436 kB

# More memory pressure

**BEFORE 1** 

SwapCached: 195592 kB

SwapTotal: 3767060 kB SwapFree: 2316808 kB

**DURING 1** 

SwapCached: 195596 kB + 4K

SwapTotal: 3767060 kB SwapFree: 2316808 kB

**DURING 2** 

SwapCached: 195596 kB

SwapTotal: 3767060 kB SwapFree: 2316808 kB

**AFTER** 

SwapCached: 195564 kB

SwapTotal: 3767060 kB SwapFree: 2316808 kB Removing memory pressure: SwapCached: 173272 kB

SwapTotal: 3767060 kB SwapFree: 2337544 kB

SwapCached: 159068 kB

SwapTotal: 3767060 kB SwapFree: 2363400 kB

SwapCached: 159028 kB

SwapTotal: 3767060 kB SwapFree: 2363400 kB

SwapCached: 180028 kB

SwapTotal: 3767060 kB SwapFree: 2340360 kB

# Clearing swapspace after 0kb

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 9736 kB SwapTotal: 3767060 kB SwapFree: 0 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 25928 kB SwapTotal: 3767060 kB SwapFree: 3059068 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 26680 kB SwapTotal: 3767060 kB SwapFree: 3077244 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 25744 kB SwapTotal: 3767060 kB SwapFree: 3090812 kB

### shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 31700 kB SwapTotal: 3767060 kB SwapFree: 2620540 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 34444 kB SwapTotal: 3767060 kB SwapFree: 1925500 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 34680 kB SwapTotal: 3767060 kB SwapFree: 1241432 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 35400 kB SwapTotal: 3767060 kB SwapFree: 443456 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 25608 kB SwapTotal: 3767060 kB SwapFree: 3111192 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 26384 kB SwapTotal: 3767060 kB SwapFree: 3115544 kB

shiba:/ # cat /proc/meminfo | grep Swap

SwapCached: 34512 kB SwapTotal: 3767060 kB SwapFree: 198572 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 21700 kB SwapTotal: 3767060 kB SwapFree: 0 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 23928 kB SwapTotal: 3767060 kB SwapFree: 3060188 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 25188 kB SwapTotal: 3767060 kB

SwapFree: 3087652 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 25516 kB SwapTotal: 3767060 kB SwapFree: 3088164 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 26196 kB SwapTotal: 3767060 kB SwapFree: 3089444 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 5364 kB SwapTotal: 3767060 kB SwapFree: 464 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 4616 kB SwapTotal: 3767060 kB SwapFree: 2316 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 21004 kB SwapTotal: 3767060 kB SwapFree: 3037408 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 21508 kB SwapTotal: 3767060 kB SwapFree: 3037664 kB

shiba:/# cat /proc/meminfo | grep Swap

SwapCached: 21508 kB SwapTotal: 3767060 kB SwapFree: 3037664 kB

shiba:/ # cat /proc/meminfo | grep Swap

SwapCached: 21496 kB

SwapTotal: 3767060 kB SwapFree: 3037664 kB