**PORTING MULTIPATH TCP**

By

Regards

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I have done the basic porting the multipath TCP. Here is the code

<https://github.com/ASHISHTANWER/mptcp_android-4.2.2_Nexus4>

I had followed the code and patches contributed by some individuals

[http://multipath-tcp.org/](http://multipath-tcp.org/pmwiki.php/Users/Android)

But, I could not compile their due to lots of errors. I modified the makefiles to allow some error checks and let the kernel compile and when I finally compiled the kernel (zImage is formed). I uploaded the complete project with kernel binaries on the GIThub. Here is the kernel zImage

<https://github.com/ashishtanwer/mptcp_android-4.2.2_Nexus4/blob/android-4.2.2_r1/arch/arm/boot/zImage>

Then I followed the XDA threads to add RAM disk (Memory address for Nexus 4) to the kernel zImage, to formed the bootImage.

[DEV][TOOLS] Unpack Repack boot.img (Kernel) Files and Modify Ramdisk

[http://forum.xda-developers.](http://forum.xda-developers.com/showthread.php?t=1477845)

[HOWTO][INFO] Update the kernel zImage in boot.img

[http://forum.xda-developers.](http://forum.xda-developers.com/showthread.php?t=1984094)

[Q] how to convert zImage to boot.img

[http://forum.xda-developers.](http://forum.xda-developers.com/showthread.php?t=2105326)

I took a lot to time to form a perfect boot.img by adding the correct RAMdisk.

Finally, after flashed the **bootImage** in the **fastboot mode** on the Nexus 4 device. After flashing the MODIFIED KERNEL, I was able to boot the Nexus 4 device. :)

FLASHING COMMAND

**fastboot flash boot boot.img**

I found everything was working fine except the Wifi that was disabled in GUI. I expected it because on the changes in the Interface introduced by the Multipath TCP patches. Since the changes are not in HAL, the framework is now NOT in sync with the kernel and system, and so Wifi is permanently disabled.

But,

I am not sure all the hacks I had done to compile the kernel have not affected the kernel in wrong way. I also do not know how to test if the multipath TCP is working fine.

REFERENCES

[http://web.mit.edu/anirudh/](http://web.mit.edu/anirudh/www/imc086-dengA.pdf)

[http://www3.cs.stonybrook.edu](http://www3.cs.stonybrook.edu/)