**Tech**

**Custom Operating Systems based on AOSP**

Hello developers, the heading must have gave you a simple idea on what we are going to discuss today.

In day to day life we all are using smartphones, some people use Iphones, some use android and very less people are still using those old school Symbian mobiles.We are not gonna talk about Iphones , because they have an closed source project i.e source code is not available for developers to contribute.

**What is AOSP?**

Android AOSP stands for Android Open Source Project is maintained by google. As the name suggest, it is an open source project so that the developers contribute in AOSP to make it better. It is a kind of custom ROM that act as the base for all kinds of ROM and is very stable, the only con being that it doesn’t provide themes and customization like MIUI or any other ROM.

**What is the need for AOSP?**

Basically Google delivers the purest form of AOSP ROMs in its pixel devices. Many other companies are delivering mobile phones pre-loaded with **Android One** which is pure pixel type rom for non-pixel phones. Google generally oversees its general direction and bulk of development and also releases a new android version each year , **Android 12** being the latest.

Other types of people using AOSP are custom rom users.

Now you guys may be wondering who are custom rom users and what is a custom ROM?

**Who are custom ROM users?**

Many phones in todays market that run android have excellent hardware like a good camera, excellent processors and a enough amount of ram for day to day work, but they still lag because they are still lagging behind in software development as they only concentrate on looks and hardware of the devices.

Now, many cases are there in which company rolls out an buggy OTA update causing the device to brick , one such case happened with MI A3 (laurel\_sprout) , xiomi released a buggy update which bricked n number of devices globally.

Now to avoid such situations and problems many developers started to edit the AOSP project for their own mobile and added those features that people wanted and removed feature that caused instability in the system.

For Example pure AOSP users never had much themes or system customizations so a custom rom developer adds customization to that rom and fulfilled their as well as general peoples need too. This caused rise in the developing of custom ROMs.

In any phone community there always be a particular number of people who wanted to do gaming, but couldn’t do due to poor software so the developer will tweak the AOSP in such a way that it gives good runtime FPS and less lag.

Like this one can always develop a custom rom based on our needs

Now in present day there are many numbers of custom roms available , most popular one being LineageOS , HavocOS , PixelExperience and etc.

That’s it for today