

# How carriers and manufacturers make your Android phone's software worse.

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# Stock Android Summary

- Android is an open source operating systems for phones
- Its open source nature means that it can be modified by 3rd parties
- Over 2.5 billion devices run Android
- This huge amount means that some installs are bound to be abused
- In Q2 2019, stock Android accounted for less than 5% of market share

# Shipping With Uninstallable Bloatware

- Bloatware is preinstalled software that comes with a new Android phone
- Some Bloatware is good, others are completely useless.
- Bloatware must be stored in the system partition
- Bloatware can be disabled but not removed

# Forced Android Skins

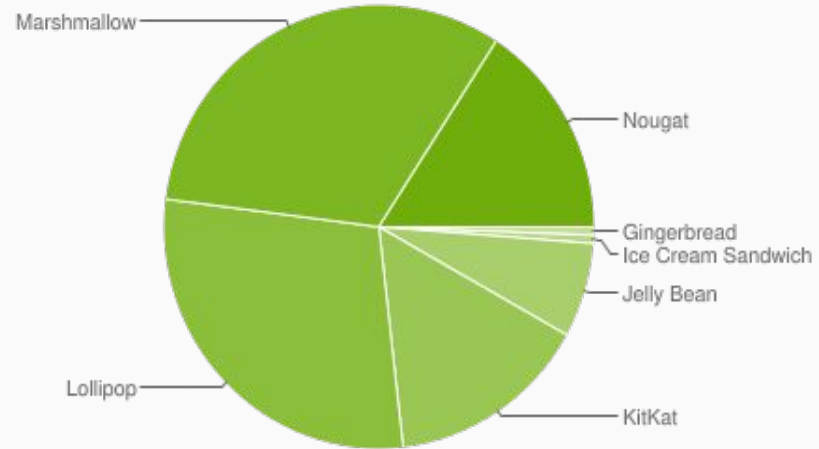
- Manufacturers often change the theme
- It is unable to change back to the default android interface
  - Manufacturers modify the Android's code
- Can skin change to something similar but will not be the same.
  - Stock Android

# Blocked Apps and Features

- Carriers have the ability to block apps from their network
- Often limits the access to the app that benefit their business model
- Require extra payment to install a particular app

# Lack of Updates

- Long Waits for Update
- Random System Update (Early Android Systems)
- Updates Hard to Process
- Intentionally Delayed Update



# Locked Bootloaders

- What is a bootloader?
- Why Android phones are shipped with locked bootloaders?
- Unlock?

Any Questions?



Thank you!