MSM8909 Android QRD Bring up

Version 0.1

Android is a mobile operating system developed to run on a large set of devices. But in terms of hardware specification every device model is different from other device model. Unlike regular operating systems android is not developed in such a way that hardware specific drivers can be installed after installing the operating system itself. Drivers in case of Android is embedded into the ROM. If you have two similar devices often little modification needs to be made to run one OS on a sibling device. However, even hardware that looks the same externally can have drastically different internals.

Revision History

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# Pre-Requisites

1. install required packages using below command

$ sudo apt-get install bison g++-multilib git gperf libxml2-utils make zlib1g-dev:i386 zip liblz4- tool libncurses5

1. Download repo tool by running below commands

mkdir ~/bin

URL: <http://commondatastorage.googleapis.com/git-repo-downloads/repo> ~/bin/repo

chmod a+x ~/bin/repo

export PATH=~/bin:$PATH

Or execute below command to install required tools.

1. sudo apt-get install phablet-tools

# Build compilation process:

1. Download and sync the source code

Download source code from Qualcomm's create-point, extract it and run "sync.sh" under "<Extracted-path>/LINUX/" path

1. Compile and build the source code by using lunch and make commands.

>> source build/envsetup.sh

>> lunch <select respective chipset flag number>

>> make -j8

# Flashing Procedure:Android is a mobile operating system developed to run on a large set of devices. But in terms of hardware specification every device model is different from other device model. Unlike regular operating systems android is not developed in such a way that hardware specific drivers can be installed after installing the operating system itself. Drivers in case of Android is embedded into the ROM. If you have two similar devices often little modification needs to be made to run one OS on a sibling device. However, even hardware that looks the same externally can have drastically different internals.

Flash the all subsystems from meta and apps images

1. adb reboot bootloader: To keep the device in fastboot mode
2. flash all images by using fastboot commands. Use fastboot\_complete.py file to flash all required images or follow below guidelines.

<https://android.gadgethacks.com/how-to/complete-guide-flashing-factory-images-android-using-fastboot-0175277/>

<https://forum.xda-developers.com/android/help/adb-fastboot-commands-bootloader-kernel-t3597181>

1. “fastboot reboot" to restart the device

# Challenges Faced:

1. **MSM8909.3.1.1 OEM link broken issue:**

Unable to download MSM8909 AMSS OEM build from create point as the link was broken.

**Resolution:** Ableto resolve this issue by following up with Qualcomm CE team.

1. **JDK version issue:**

To build Android version-8.0, we need open jdk-8 version. Tried to switch the JDK version to 8 by using below command. But still build process was failing.

>> update-alternatives --config java

**Resolution:** To fix this issue we follow below solution

sudo apt-get purge openjdk-\* icedtea-\* icedtea6-\*

sudo apt-get update

sudo apt-get install openjdk-8-jdk

java -version

1. **Build Flashing issue:**

Tried to flash only apps build. But the device was not coming out of fastboot mode.

**Resolution:** To overcome this issue we run "fastboot\_complete.py" script, to flash complete build with \*.mbn files.