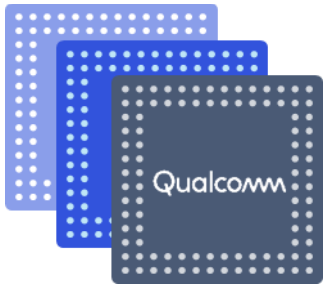
Updatable Graphics Drivers and How to Get Updates

Qualcomm Technologies, Inc.

80-12539-1 Rev. A



All Qualcomm products mentioned herein are products of Qualcomm Technologies, Inc. and/or its subsidiaries.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries. Other product and brand names may be trademarks or registered trademarks of their respective owners.

This technical data may be subject to U.S. and international export, re-export, or transfer (“export”) laws. Diversion contrary to U.S. and international law is strictly prohibited.

Qualcomm Technologies, Inc.
5775 Morehouse Drive
San Diego, CA 92121
U.S.A.

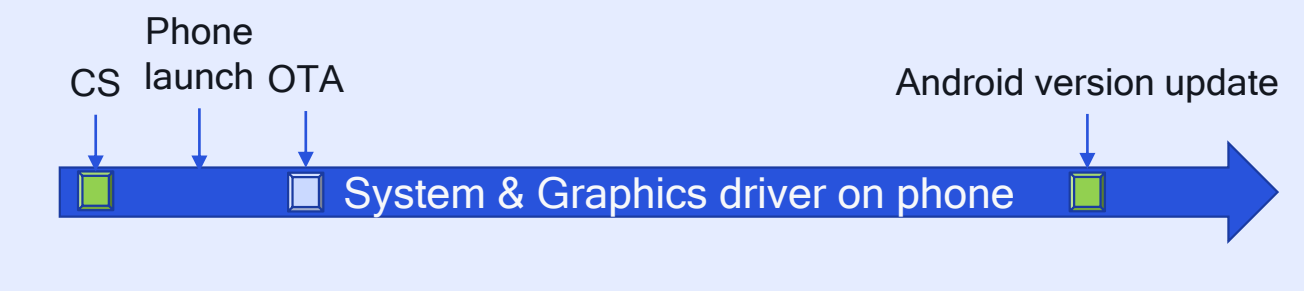
© 2020 Qualcomm Technologies, Inc. and/or its subsidiaries. All rights reserved.

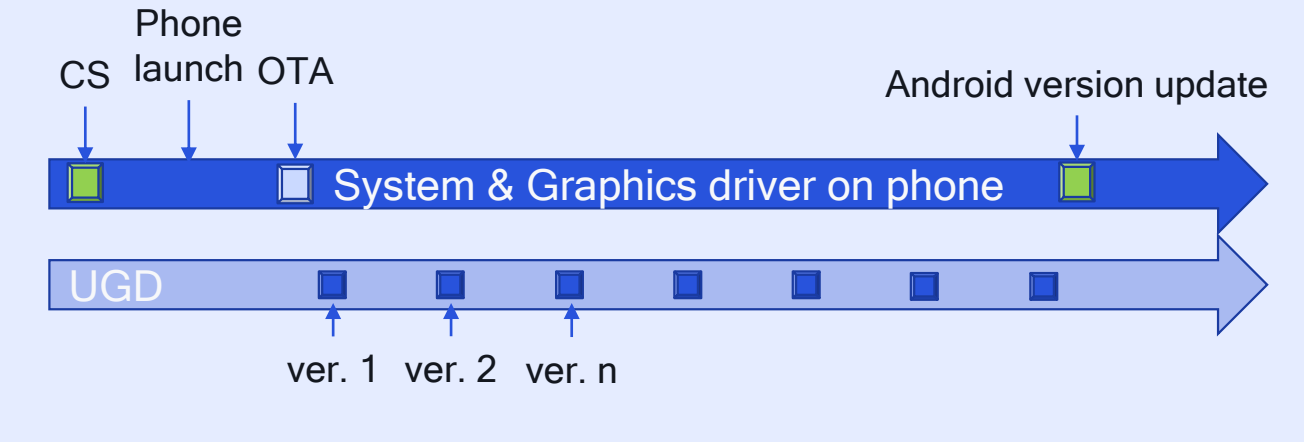
Revision History

Revision	Date	Description
A	May 2020	Initial release

Updatable Graphics Drivers—How it works

- Key elements
  - Additional Graphics Driver
    - Updatable from the play store(app store)
    - Cadence is independent of OTA
    - Only OpenGL ES and Vulkan
  - Whitelist of games
    - Limited to using the updatable graphics driver
  - Blacklist of games
    - Forced to use the original graphics driver from system upgrade



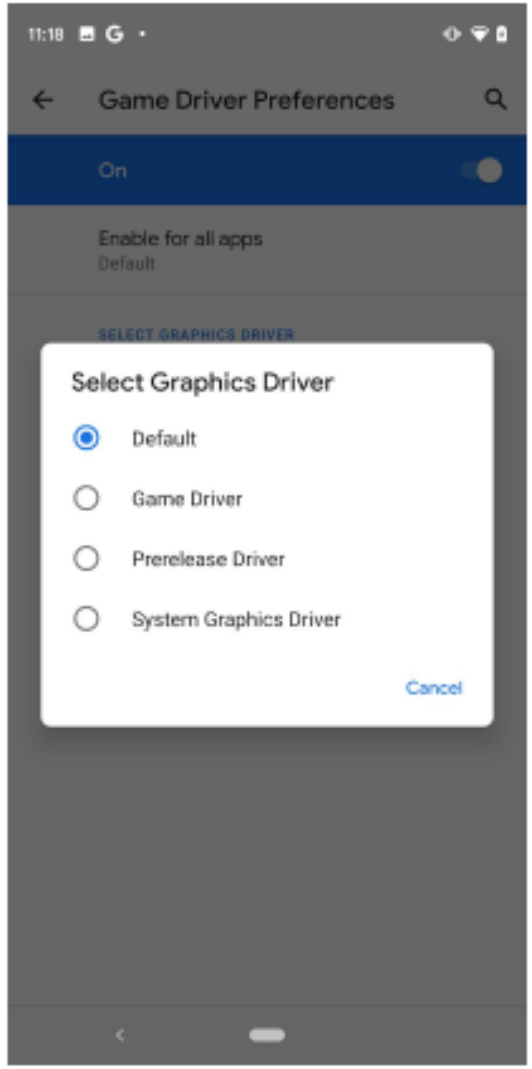


Updatable Graphics Drivers—Availability

- Starting from Android Q
- It is firstly supported on some SDM865 devices
- OEMs and Qualcomm to determine whitelist for a specific phone/project
- Blacklist managed by OEM for disaster fallback

Developer Driver for Game Developers

- Developer Driver is a pre-release version of Updatable Graphics Driver.
- Ability to test out the bug fixes, performance improvements and new features from Qualcomm on specific OEM devices.
- Once verified to work as expected on the Developer Driver, game developer can remove workaround in the game (if any) and release new version.
- Some new extensions and new features might be first available on Developer Driver.
- Some advanced features of tools such as “Android GPU Inspector” need to work with Updatable Graphics Driver.



How to Get Developer Driver From Qualcomm

- One account for each game studio. Different studios in the same company can apply different accounts.
- Provide below information to ugd.chinapartner@qti.qualcomm.com, we will run the certification process. If passed, you will receive an email to guide you how to download the Developer Driver.
- Information needed:
  - Contact/POC Name (Both Chinese and English)
  - Company Name (Both Chinese and English)
  - Studio Name (Both Chinese and English)
  - Email Address
  - Target use cases (choose all that applies, and can add others)
    - GLES game
    - Vulkan game
    - New feature/extension
    - Tools

Qualcomm

Thank you

Follow us on:

For more information, visit us at:

www.qualcomm.com & www.qualcomm.com/blog

Nothing in these materials is an offer to sell any of the components or devices referenced herein.

©2020 Qualcomm Technologies, Inc. and/or its affiliated companies. All Rights Reserved.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries. Other products and brand names may be trademarks or registered trademarks of their respective owners.

References in this presentation to "Qualcomm" may mean Qualcomm Incorporated, Qualcomm Technologies, Inc., and/or other subsidiaries or business units within the Qualcomm corporate structure, as applicable. Qualcomm Incorporated includes Qualcomm's licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a wholly-owned subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its product and services businesses, including its semiconductor business, QCT.