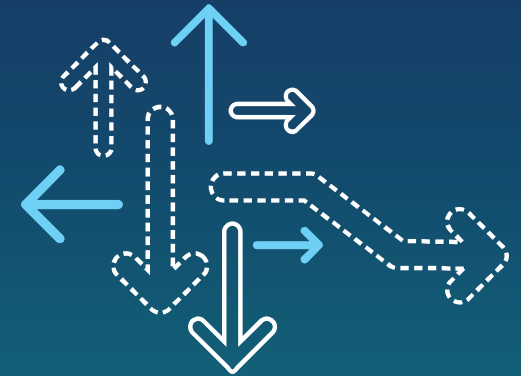


Open Source and Standards in 5G

May 25, 2016 San Diego



Technical Collaboration → Legal Collaboration

David Marr

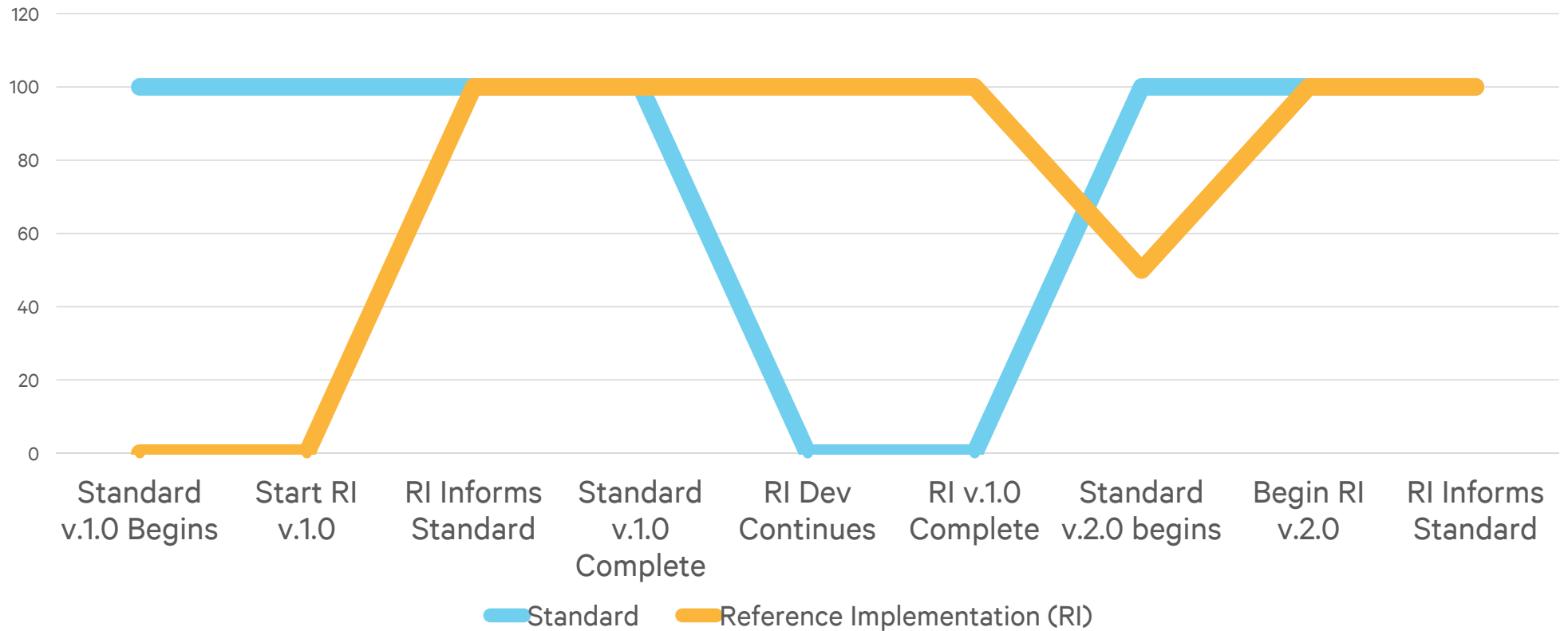
VP & Legal Counsel

Open Source Group

Qualcomm Technologies Inc.

Standards and Open Source Development – Each Making the Other Better

Concurrent Reference Implementation Engineering Can *Improve* the Specification



Open Source

So what is it, and what's the concern?

- Many open source licenses are perfectly compatible with strong patent rights
 - a business decision, based on criteria
- How is open source is best described?
 - a licensing model
 - a cultural model for collaboration
 - a body of software
 - compatible with proprietary software models
 - Incompatible with proprietary software models
 - compatible with FRAND
 - incompatible with FRAND

Open Source Definition

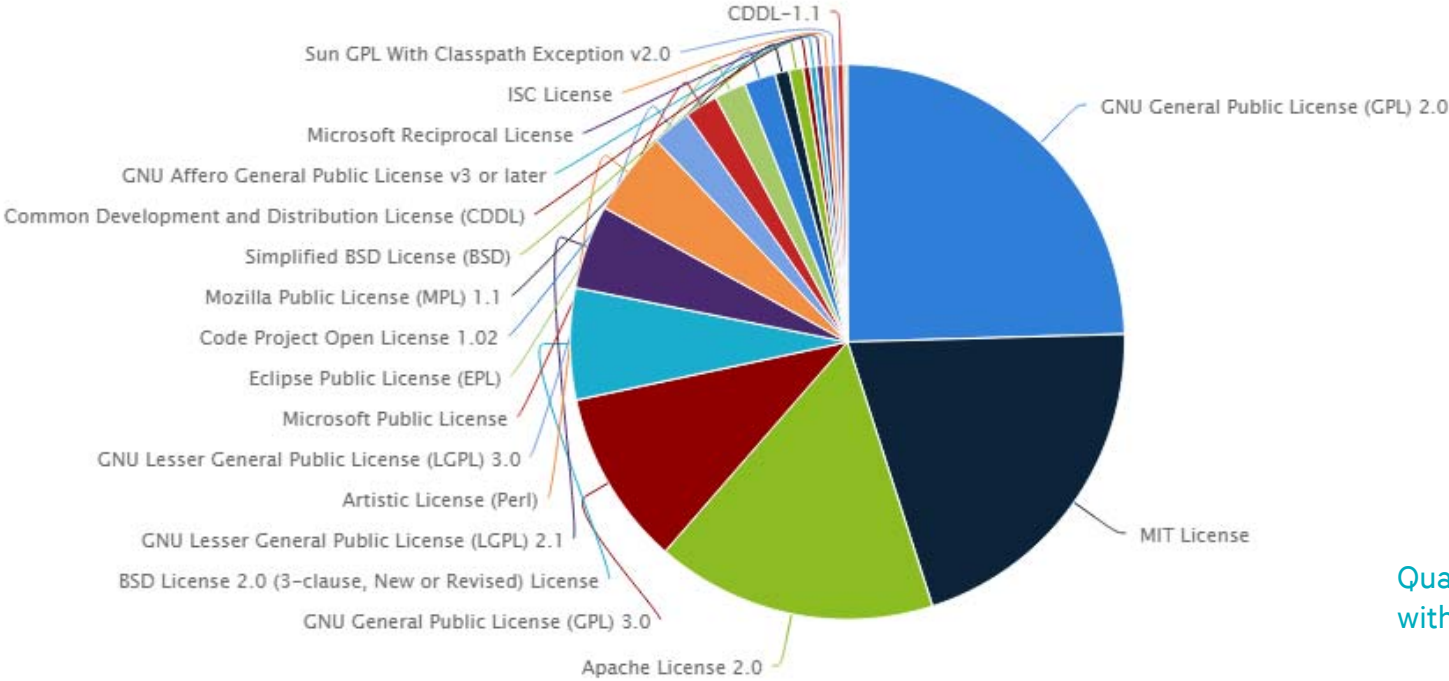
Copyright Rights

- The Open Source Definition is at www.opensource.org
- License must grant broad copyright rights for free:
 - Copy
 - Modify
 - Distribute
- License terms must not favor or disfavor:
 - Persons/Groups
 - Fields of endeavor
 - Specific products
- Patent license terms can always be incrementally added (and many approved licenses have them) but are **not part of the definition**

70+ Approved Open Source Licenses

Source: Black Duck Software

Top 20 Most Commonly Used Licenses in Open Source Projects



Qualcomm works with all OSS licenses

Case Study: The Apache License, Version 2

Inherent conflict with most IPR policies as well as many popular open source licenses

- Apache license is not compatible with many major open source licenses such as GPLv2 and LGPLv2.1
- Apache license creates added complexity when you already have an IPR policy – precisely where you need high clarity
- Apache’s patent retaliation provision – is that consistent with SDO policy?
 - Identical triggers?
- Runs counter to objective to quickly create a reference implementation
 - Confused contributors
- Additional administrative overhead: Apache projects need a corresponding contribution agreement
- What is a “Work”?

BSD 3-Clause License – Clarification in Red

<http://opensource.org/licenses/BSD-3-Clause>

Copyright (c) <YEAR>, <OWNER>
All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- 1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.*
- 2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.*
- 3. Neither the name of the copyright holder nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.*

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The above license is used as a license under copyright only. Please refer to the <SDO> IPR Policy for any applicable patent licensing terms.

Closing Comments

An SDO's IPR Policy should encourage the best contributions

- Many ways for *FRAND to work with Open Source* if thoughtfully approached
 - Permissive, copyright-based open source license like the BSD
 - Plus an express reference to the SDO's existing IPR Policy in conjunction with the open source license
- *Cherry picking* open source concepts (about enabling a specific implementation for often commodity technology) and selectively pushing them to SDOs (about enabling many compatible implementations for often cutting-edge innovation), risks *undermining the ROI that supports valuable contributions*

Thank you

Follow us on:    

For more information on Qualcomm, visit us at:
www.qualcomm.com & www.qualcomm.com/blog

©2013-2015 Qualcomm Incorporated and/or its subsidiaries. All Rights Reserved.

Qualcomm, Snapdragon, MSM, and 2Net are trademarks of Qualcomm Incorporated, registered in the United States and other countries. Wireless Reach, Thinkabit, and Zeroth are trademarks of Qualcomm Incorporated. All Qualcomm Incorporated trademarks are used with permission. StreamBoost is a trademark of Qualcomm Atheros, Inc., registered in the United States and other countries. 'HealthyCircles' is a trademark of MyTelehealth Solutions, LLC, 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.

