Upstream Downstream

Norvald H. Ryeng
Software Engineer

norvald.ryeng@oracle.com

Agenda

1 MySQL @ Oracle

2 Features and bugfixes in stable releases

3 Platform support

4 Upstream package repos

5 Coordinating across distros

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MySQL Fabric

MySQL Workbench 6.1

MySQL Migration Wizard

MySQL 5.6

MySQL 5.5

Windows installer & Tools

MySQL 5.7

MySQL Cluster Manager

MySQL Applier for Hadoop

MySQL Enterprise Monitor 2.3 & 3.0

MySQL Cluster 7.4

MySQL Enterprise | Backup

MySQL Utilities

Security

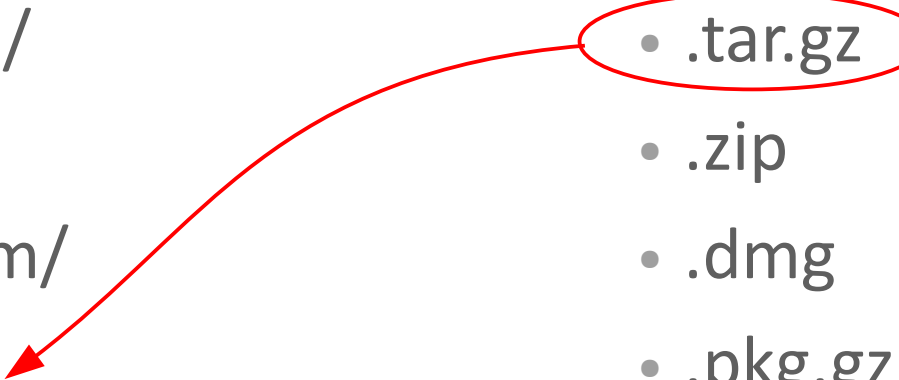Scalability

MySQL Cluster 7.3

MySQL Workbench 5.2 & 6.0

HA

MySQL Cluster 7.2

Audit

MySQL Enterprise Oracle Certifications

MySQL Cluster 7.1

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Distributing a new release

- http://dev.mysql.com/

- FTP

- http://repo.mysql.com/

- Distros' native repos
  - We package for some distros
  - **Thank you, community!**

- Source code on GitHub

- .tar.gz

- .zip

- .dmg

- .pkg.gz

- .rpm

- .deb

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Development model

5.7.(x-3) 5.7.(x-2) 5.7.(x-1) RC 5.7.x GA 5.7.(x+1) 5.7.(x+2)

trunk

5.7
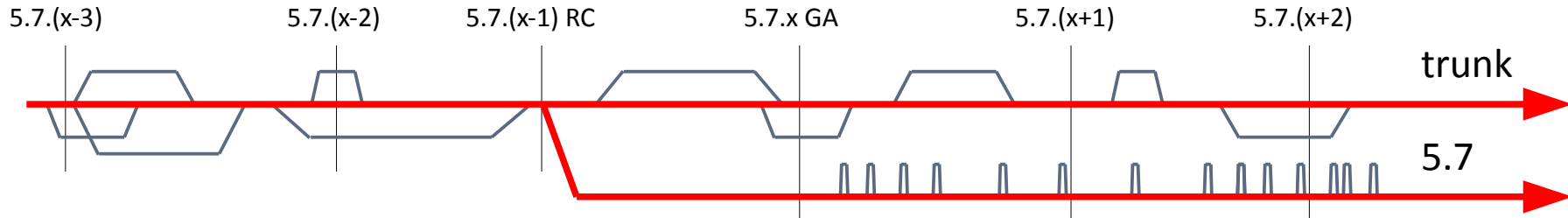
Before GA

- Feature branches based on trunk
  - Single bug fix branch
  - Multiple features in one branch
- Merged back on completion
  - Code review
  - Gcov
  - Unit tests
  - MTR
  - RQG
- Continuous testing: per push, daily, etc.

After GA

- Maintenance releases
- Only some bug fixes
  - Chosen/approved by Support
  - Code review
  - Unit tests / MTR
- No new features
- No risky bug fixes
- Continuous testing: per push, daily, etc.

Development model

5.7.(x-3) 5.7.(x-2) 5.7.(x-1) RC 5.7.x GA 5.7.(x+1) 5.7.(x+2)

trunk

5.7

5.7.(x-2) cutoff

5.7.(x+2) cutoff
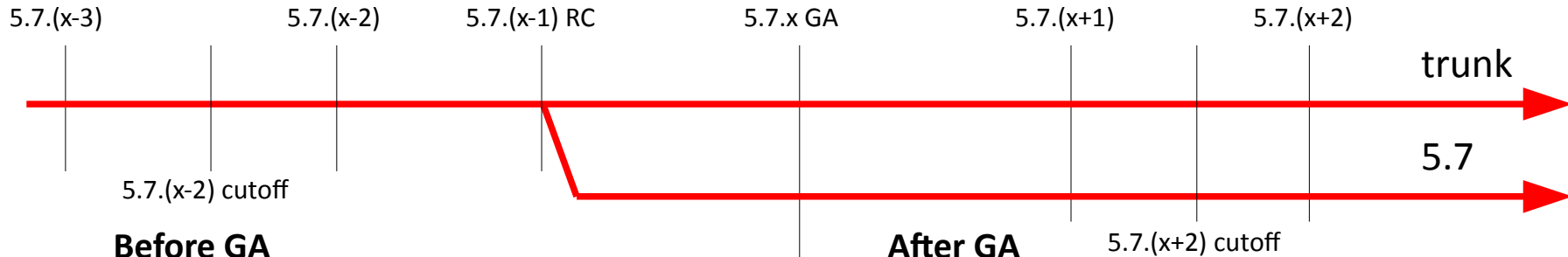
Before GA

- All DMRs are of RC quality
- ~1 month of testing before release
- Upgrade-downgrade testing, but not guaranteed between DMRs

After GA

- All bug fixes approved by Support
  - No risky bug fixes
- ~1 month of testing before release

Common to all releases, both before and after GA

- Testing with other products
- Upgrade-downgrade testing
- Performance testing
- Load-stress testing w and w/o replication

- Large volume testing
- Package validation/installation/upgrade
- Windows installer testing
- Re-spin on showstoppers

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What is minimal risk?

Upstream

- Set of necessary bug fixes

- Thoroughly tested

- Update to get all the necessary fixes

Downstream

- Cherry-pick security bug fixes

- Test using standard test suite

- Upgrade to get security bug fixes

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Ubuntu Micro Release Exception

- Exception from the rule that a "patch must be as small and unintrusive as possible"

  – Must have satisfactory QA and development process

- Used particularly for web browsers and larger, mature projects

- Granted to MySQL on February 7, 2014

  – De facto for a long time before that

- Reduces strain

  – On maintainers caught between upstream and distro's security team

  – On the upstream-downstream relationship

Handling bugs from package maintainers

- Packaging problems affect distribution channels
  - A lot of users may suffer!
- Notification when package maintainers report bugs
  - Tag it and track it
- May result in higher priority
- Please report bugs!
  - It's easier to point developers to a bug than explain that "some maintainer asked us to fix this"

Slashdot

MySQL Man Pages Silently Relicensed Away From GPL

Posted by **Soulskill** on Tuesday June 18, 2013 @08:11PM
from the gimme-it!-it's-mine! dept.

An anonymous reader writes

"The MariaDB blog is reporting a small change to the license covering the man pages to MySQL. Until recently, the governing license was GPLv2. Now the license reads, 'This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.'"

←	Related Links	→
Verizon Accused of Intentionally Slowing Netflix Video Streaming	**Submission: MySQL man pages silently relicensed away from GPL** **Relicensing of MySQL Man Pages Just a Bug**	NVIDIA To License Its GPU Tech

Archived Discussion   Load All Comments

32 Full   68 Abbreviated 0 Hidden

Slashdot

Relicensing of MySQL Man Pages Just a Bug

An anonymous reader writes

> "As reported earlier on Slashdot it appeared the license covering the MySQL man pages was changed from the GPL to something less good. However, as speculated, this appears to be a bug."

The build system was grabbing the wrong files, oops. The fix should be coming shortly: "Once the fixes have been made to the build system, we will rebuild the latest 5.1, 5.5, 5.6 releases plus the latest 5.7 milestone and make those available publicly asap."

← | **Related Links** | →

MySQL Man Pages Silently Relicensed Away From GPL

Submission: Relicense of MySQL man pages filed as bug

6 Full   26 Abbreviated 36 Hidden

Archived Discussion   Load All Comments

Comments Filter: All   Insightful   Informative   Interesting   Funny

KEEP CALM AND REPORT A BUG

Platform support

- Mismatch in platform support between upstream and downstream, e.g.:
  - Some distros also support exotic/uncommon/old HW
  - MySQL is supported only on mainstream/popular/modern HW
  - MySQL is supported on a larger variety of OSes
- Unused/untested platform dependent code is bad
  - It breaks without warning
  - It's "noise" to the developer
- Maintain platform dependent code where it's used and tested

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Our goal:

As few patches as possible applied during packaging.

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Upstream package repos

- An addition, not competition, to downstream
  - Some users prefer one over the other
  - Possible to upgrade faster than the distro
- Forces upstream to eat their own dogfood
  - Packaging ready when a new version is released
    - Also for major releases
  - "Best practices" knowledge base for downstream maintainers
    - Aligning across distros and between distros and upstream
  - Increases upstream knowledge and awareness
  - Integrated into regular QA processes

Coordinating across distros

- Do applications need OpenSSL exemptions?

- Is installation interactive?

- Does a server start automatically after installation?

- Given alternatives, can one be default?

  - What does "default" mean?

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Our goal:

Make the user experience as similar as possible across distros.

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Summary

- As few differences as possible
  - Between upstream delivery methods
  - Between upstream and downstream (patches)
  - Between distros (parameter combinations)
- Meet and talk with package maintainers
  - Understand their needs
    - Find solutions before problems occur
  - Learn about packaging and help out if needed
  - Talk about upcoming changes
- Everybody makes mistakes
  - Trust is key to making the upstream-downstream relationship work

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Thank you for packaging MySQL!

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Q & A

Learn more at
http://www.mysqlserverteam.com/
http://www.mysqlrelease.com/

Hardware and Software
Engineered to Work Together

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