

Code sheriff - Rank I

Responsibilities:

- retriggering/backfilling perf data + basic downstreaming
- 24/7 presence on perf dashboards
- report Perfherder issues
- [verbose description here](#)

Personal considerations: With some moderate adjustments, we can accomplish this 100%. The model already works: the investigation load on me was reduced, especially from alerts during my out-of-office (nighttime). Advanced CSs help a lot on daytime also.

Requirements (to fulfill rank I):

- CSs must investigate every 2 hours
- On each shift, at least one of the CS should take care of the rank 1 tasks
- Precisely evaluate each CS (resume activity recording, until beginning of August)
- Time allocation of CS (we must know; will influence estimation of training effort)
 - Should create a priority list w/ Joel of all the tasks we must do on Stockwell
 - P1: Performance sheriffing: alerts
 - P1: Fresh Oranges: retriggers, find root cause
 - P2: Disable recommended
 - P3: Intermittent triage
 - P4: Anything else

Code sheriff - Rank II & Rank III

Added responsibilities; basically conduct almost complete perf investigations (except filing perf tracking bugs):

1. Rank II

- a. advanced ***r/b (frequency: high, importance: high)
 - i. investigate alert summaries in multiple rounds & know when finished
 - ii. efficient r/b (minimal & sufficient; cherry-picking can be automated)
- b. advanced downstreaming (frequency: high)
- c. invalidating (frequency: low)
- d. recognize backout (frequency: medium)
- e. other moderate tasks (frequency: medium)
 - i. use Compare tool (frequency: low)
 - ii. report Perfherder issues
 - iii. suggest Perfherder improvements
- f. [. . . other]

2. Rank III

- a. identify culprit (frequency: **high) (needs to be done within 2 work days)
- b. reassignment (frequency: high)
- c. bisect regressions (frequency: low, importance: high)

- d. procure Gecko profiles (frequency: high, importance: high)
- e. ensuring the perf docs are up to date (frequency: medium, importance: high)
- f. >6 months experience
- g. [. . . other]

Considerations: With a proper roadmap, the CS team *could* reach a mix of rank I and rank II on the long term. I have 70% confidence on this. Ideally, a team of 3 *could* consist of: 1 rank II, 2 rank I; we can revisit bandwidth on the long term.

Rank II training will ramp up the core responsibilities for doing 60% of daily high frequency routines. This will take many months: ~6 for CS. We have to consider training breaks, so team stabilizes after each new responsibility is acquired: 2 weeks/break should suffice.

Rank IIIs are eligible only after >6 months of Rank II + final training + Perf sheriff vouch, in this order. This training should be considerably shorter: ~1-2 months for CS. Main characteristics here:

- very low error rate on routines
- experienced
- high confidence for identified culprits
- Perfherder full mastery

Pros/Cons for investing *more* effort in rank II training:

Pros:

- highly reduced load for Perf Inspector sheriffs
- CS team will self-sustain itself, accounting for team member exits
- optimal response to regressions
- Advanced tasks can be performed in a 24/7 format

Cons:

- training time (8 to 10 months? Probably more?)
 - same CSs aren't available daily
- training effort (1 hour/day?)
- moderate investigation confidence from CSs side; costs more time to improve confidence
- not sure about outcome
- CS team is committed to other tracks as well (other than Mozilla)

Roadmap/Requirements:

- training done by :igoldan & :jmaher
- precise & well defined training iteration docs
- ongoingly record TODO items, to conduct efficient training
 - for every CS see what's good/bad & promptly address lack of knowledge

Added responsibilities were ordered according to training structure.

The weekly time we'll invest in training Rank II: ? days.

Perf sheriff

Pros/Cons for investing effort in extra Perf sheriff:

Pros:

- dedicated team
- organized & efficient tool development/maintenance, with clear roadmaps
- easier, straightforward, shorter ramp up (<6 months; even 4-5 months)
 - same ****PSs available daily for ramp up
- high confidence in outcome
- team is happy
- good escalation points (day - igoldan +1, night - rwood)

Cons:

- budget needed

Requirements:

- pair in close timezone

Roadmap

Training will consist of same materials for CSs. After 3 months, development tasks can mix in gradually. After 6 months, we start doing alternating shifts (PerfInspector & Perf Tools).

Personal conclusion:

For an ideal scenario, investment should go in both directions: have rank II Code sheriffs as shift leaders for perf investigations & other 2 to 4 Code sheriffs at rank I + procure 1 Perf sheriff (either by opening position or reorganizing current PI team). Procuring 2 Perf sheriffs will increase team stability and also development speed.

Suggested team roster:

- 3 x Perf Sheriffs (igoldan + rwood + 1)

- responsibilities: development, investigations review
- 15 (undedicated) x Code Sheriffs
 - out of which 5 Rank III
 - rest of 10 Rank I
 - responsibilities: investigations, monitoring Perfherder, escalating issues

An average day on perf investigations would look like: Code sheriffs quickly react to new alerts by r/b. Then they constantly come back and chew on the new alerts, trying to identify the culprit. This way, much load is taken from Perf sheriffs.

Perf sheriffs resume investigations with lots of data already backfilled; they quickly find out the culprit. With small amounts of time consumed as Perf Inspector sheriffs, they dedicate the rest of their time in improving the perf tools and instructing the Code sheriffs on new features or tool changes.

For every shift, have rank II Code Sheriffs coordinating the perf investigations across a shift & other available sheriffs at rank I. Rank I sheriffs provide immediate backfill of data for new alerts. Whenever a rank I wants to advance, the shift leader will aid the PerfInspector sheriff in instructing this member.

2 Perf sheriffs switch shifts daily. That way, they won't suffer from burnout. One will do development, while the other one will do a mix of both, prioritizing perf investigations.

3 Perf sheriffs would split activity this way: 2 Perf Tools sheriff and 1 PerfInspector sheriff. If the load on PerfInspector sheriff is big, then one of the 2 Perf Tools sheriffs can switch to investigating alerts also.

Basically, every new Perf sheriff will be allocated more and more towards development.

Perf sheriffs are the main drivers for the CS team, at least in this training phase. A solid Perf sheriff team brings stability to CS role. At some point (>10 months), CS will be fully operational on Perfherder and less dependant on Perf sheriffs.

Do we all agree to rank CSs up only? We get good outcome on investigation.

Do we want to invest in Perf sheriffs only? We get better tools, have very good investigation & can properly evolve team.

* CS: Code sheriff

** out of low / medium / high

*** retriggering/backfilling

**** PS: Performance sheriff

