Branch-Based & Flag-Based

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|  | | | Feature flag-based | | Corresponding branch-based | |
| Group | | Goal | KPI | Rationale | KPI | Rationale |
| 1 | One code line  (From Gerrit)  The deviation of code:  how quickly to get the latest code in/out?  To reduce the unintegrated code to master. | To minimize the time reaching to release | How soon does merge happen? | Average TAT for all/each subtopic branch  (Turn Around Time) | Which branch is the bottleneck? | The ~~maximum/~~average single life cycle among all feature branches (from "Start of Dev" until "End of Dev") |
| To minimize the integration effort | How often are the successful merges? | Success rates  (# of commits merged into master branch/# non-trivial patchset) | How difficult to merge a commit? | Size of merge commit  (Indication of effort)  (Bram thinks not same metric as for feature-based but Josh thinks they both refer to integration effort) |
| To shorten the integration time | How long it takes to merge subtopic branch into master? | Average build time on master branch  (total build time/# of non-trivial patch-sets) | How long it takes to merge feature branch into dev? | The average build time on dev branch  (total build time/# feature branches) |
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| 2 | High velocity in Development  (From Git)  High, consistent velocity in commits | To decrease the size of commits | How large are commits? | Average LOC of commits | X  (X means the same as feature-based) | X |
| To shorten the integration of new commits | How long does it take to integrate a commit to subtopic branch? | Average build time per commit | X | X |
| To increase the number of merged commits per day | How many commits got merged into each branch per day? | Success rate per subtopic/feature branch | X | X |
|  | | | | | | |
| 3 | Frequent delivery  (From JIRA)  (NA)  (can only be accessed from Orca end) | To increase the productive commits | How many commits got merged into production line? | # of commits merged to stabi/cor branch | X | X |
| To decrease the amount of useless cherry-picks | How many cherry-picks are really merged? | Regression rate of cherry-pick fixes | X | X |
| To decrease the number of defects | How many defects are fixed? | Incoming and outgoing defect rate | X | X |



