Branching, CI and Deployment Strategy

Production

QA

Smoke

Post Deployment Tests

Selenium

AWS CodeDeploy

Elastic Beanstalk

Jenkins

Alerts
Dashboard
Rules
SONAR - Code
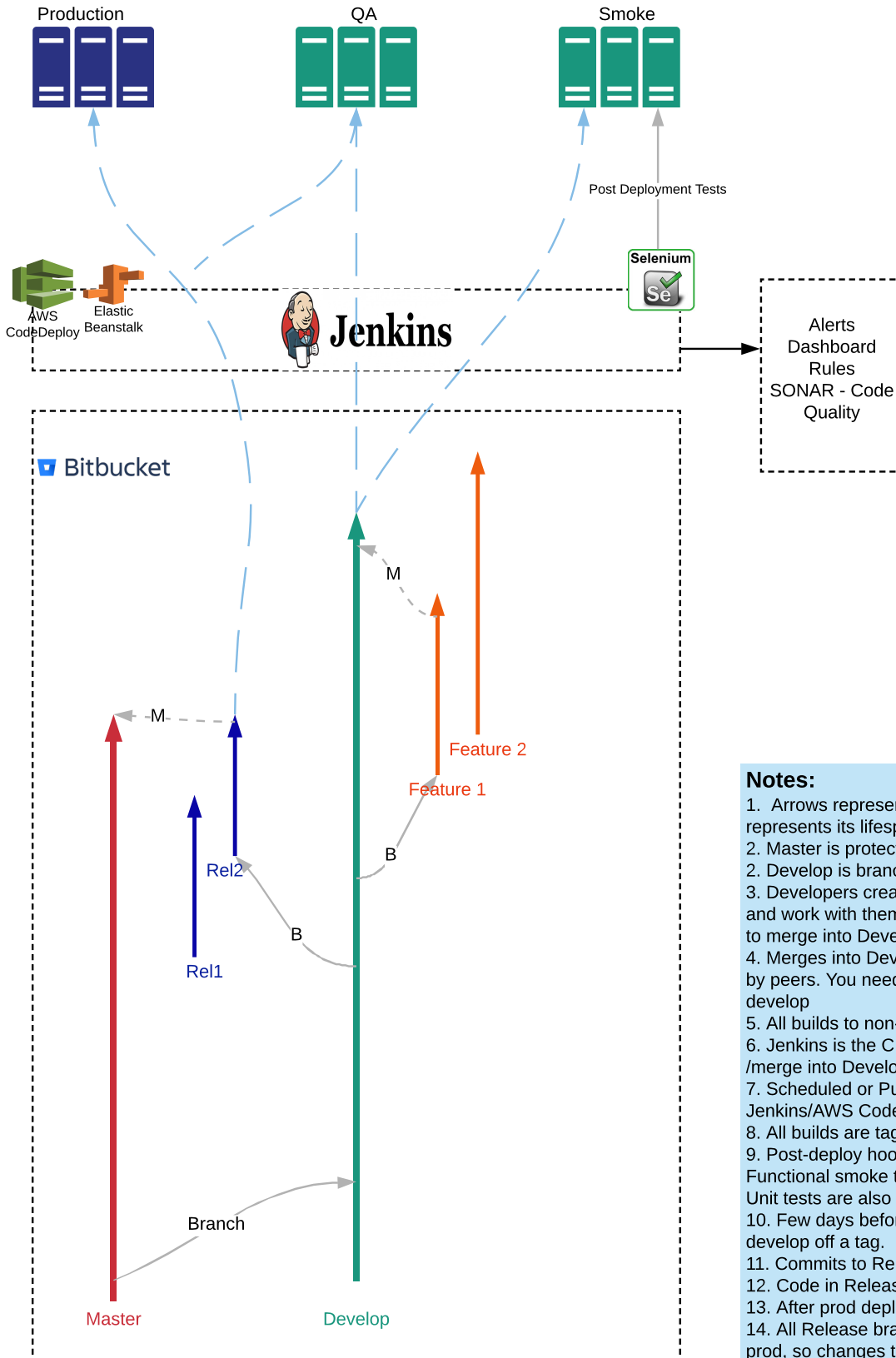Quality

Bitbucket

M

Feature 2

Feature 1

M

B

Rel2

Rel1

B

B

Branch

Master

Develop

Notes:
1. Arrows represent Branches. Start and Length of the branch represents its lifespan vis-a-vis other branches
2. Master is protected. Nobody touches it except the admin
2. Develop is branced off Master. It is usually unstable
3. Developers create branches off Develop called Feature branches and work with them. After their work is done, they raise pull requests to merge into Develop
4. Merges into Develop are peer-reviewed. Pull requests are merged by peers. You need minimum 2 votes to approve a merge into develop
5. All builds to non-prod happen from Develop
6. Jenkins is the CI server. It triggers a full build on every commit /merge into Develop
7. Scheduled or Push button deployments into Smoke via Jenkins/AWS Code Deploy. Many times a day
8. All builds are tagged or all "deployed builds" are tagged
9. Post-deploy hooks trigger Selenium test suite. Automated Functional smoke testing is completed. Errors are flagged to dev. Unit tests are also run similarly but post-build
10. Few days before Release, a release branch is created from develop off a tag. Check-ins into this is controlled.
11. Commits to Release are back-ported automatically into Develop
12. Code in Release branch is tested during stabilization or pre-prod
13. After prod deployment, code from Release is merged into Master
14. All Release branches are retained. Multiple versions could be in prod, so changes to those need to be tracked