# Android Release Process

### Team Members

- [redacted]

This is a work in WORK IN PROGRESS - [redacted] or [redacted]@[redacted] to document

### Current Coverage

| Platform | Source Code | Automated Build Software | Build Failure Mechanism | Unit Test Coverage | Integrated Tests | Functional Tests/Automation Software | Automation Source Code | Automation Failure Mechanism | Release Manager Role | Confluenc |
|---|---|---|---|---|---|---|---|---|---|---|
| Android | Git=Android |  | N/A | Android= | N/A | N/A | ios-turncar automation tests |  | • [redacted] |  |

### Branch Strategy  Trunk Based Development

- There is only one branch, there are no other branches, so there is no merging.
- No merging equals no merge conflicts.

### Code  Compile

1. Create a branch
   a. Pull request temporary feature branch
2. Dependency Analysis - Developer checks for dependencies
   a. Microservices
   b. Feature Flag On/Off
   c. Library dependency analysis  Tools Example: NPM, OSSIndex, Bundler Audit
3. Code analysis (Peer Review)  **APPROVED**  `trunk/master`
   a. Compile + Test + Build: Merge to `trunk/master`  Jenkins triggers a build  Build is Tagged
      i. Tests: Unit Tests  Integration Tests  Acceptance Testing: E2E Cypress Tests  **PASSES**
      ii. If Test  **FAILS**
   b. Event Notification
      i. Slack to notify events/status
      ii. This should go up on Screen/Board if developers are co-located and email notification should be sent out

### Deploy  Acceptance  Release Candidate

- Mobile iOS  Develop Passed  Docker  Staging

1. Deploy **release candidate** to Staging
2. Archive to executable  Version has to updated by this point
   a. Unit Tests  Integration Tests  Acceptance Testing: Mobile  Manual (Feature-based testing)  **PASSES**
   b. Promote Bumped Version  Release.YYYYMMDD.[SequenceNumber], HotFix.YYYYMMDD.[SequenceNumber]  Semantic
      i. The sequence number is the production build sequence number + 1
   c. Event Notification
      i. Slack to notify events/status
      ii. This should go up on Screen/Board if developers are co-located and email notification should be sent out

### Production Check List

1. Dependency Analysis
   a. Microservices
      i. Release Manager checks for dependencies
   b. Feature Flag On/Off
   c. Library dependency analysis  Tools Example: NPM, OSSIndex, Bundler Audit

2. INFRA ticket
   a. INFRA Ticket Must be Cleared
      i. Creating INFRA Tickets
         1. This can happen anytime from the first commit preferably on 'Staging' branch aka 'Release Branch' but should be done when at this point
            a. This needs to happen in **unison with the commit where the app version** is updated
            b. There is code in the app that says if the version does not match  in DB (supported versions table - utms.version_support)  Update Fails
               i. Suggestion  cleaner versioning to help bypass?
      ii. QA & Stakeholder  Must Approve
         1. INFRA ticket to deploy to production is created
         2. Creating INFRA tickets are required before any production environment change/release (script, new build, service restart)
         3. The INFRA ticket should contain a reference/description to all the tickets/features included in the release
         4. QA team managers should approve the INFRA tickets then an official approval should be provided by a director level or higher
         5. The team agreed to post the INFRA ticket to the QA slack channel to provide visibility then ask for confirmation from the QA team

### Submit to Google Play Store

### Hotfix and Unplanned Releases

1. Branch off `master`  Verify Fix  Cherry-Pick back to Release/Production
2. Code analysis (Peer Review)  **APPROVED**
3. Jenkins triggers a build
   a. Tests: Unit Tests  Integration Tests  Acceptance Testing: E2E Cypress Tests  Manual/QA Verify Fix  **PASSES**
   b. Event Notification
      i. Slack to notify events/status
      ii. This should go up on Screen/Board if developers are co-located and email notification should be sent out
4. Deploy fix to Staging  Docker

1. Tests: Unit Tests  Integration Tests  Acceptance Testing: E2E Cypress Tests  Manual/QA Verify Fix  **PASSES**
   - Event Notification
      a. Slack to notify events/status
      b. This should go up on Screen/Board if developers are co-located and email notification should be sent out
2. Deploy to Production  Cherry-Pick to Release
3. Promote Bumped Version  Release.YYYYMMDD.[SequenceNumber], HotFix.YYYYMMDD.[SequenceNumber]  Semantic
   a. The sequence number is the production build sequence number + 1
4. Dependency Analysis
   a. Microservices
      i. Check for dependencies
   b. Feature Flag On/Off
   c. Library dependency analysis
5. Mobile iOS  Stakeholders Approval   Apple Store  Production
6. Notification: Release Notes