• Background: Development Best Practices were discussed:
  - In general audience at F2F Beijing
  - In Release Planning Training

• Goal:
  - Get Approval from the TSC on the application of the Development Best Practices for ONAP Amsterdam Release as presented in this document and available in wiki.
Development Best Practices

• Draft Development Best Practices in wiki
  - Continuous Integration
  - Commit Process
  - Code Review
  - Code Coverage and Static Code Analysis
  - Functional Test Case Testing
  - Java Code Style
  - Scrum and Jira
  - IP compliance
Continuous Integration

- CI Practice
- The core goal of Continuous Integration is to get **fast feedback**
- There is **ONE** Branch: Master
- If there is 1 word to remember "Commit, commit, commit" multiple times a day
- Don't check In on a broken build: If the build breaks, the **developers** are **responsible** for fixing it
- Always run all commit tests locally before committing
- Wait for commit tests to pass before moving on. If the build fails, **fix it immediately** or reverse your changes
- Never go home on a broken build …
Commit Process

**Commit Practice**

3 reasons to perform a good commit:

- ONAP is public, so everything you do is widely visible. As you are proud of your work, you want to make good impressions
- It speeds up the reviewing process
- It helps to write good Release Notes

**JIRA ID mandatory** in message (not in the header)

**ONLY 1** JIRA issue per commit

Self-commits are **not allowed**

NEVER embed binaries (jar, war, tar, gz, gzip, zip) in Gerrit
Code Review

• **Practice**

  • You may not find bugs while doing Code Review, however you will find mistakes overlooked in the initial development phase

  • Code Review is mandatory

• What to check?
  - Comply to commit Practices
  - Check for FOSS compliance
  - Check if only **ONE** JIRA issue per commit
  - Is the code easily readable?
  - All Code is in English. Comment is Code

• Code Review completed within 36 Business hours
Code Coverage and Static Code Analysis

• **Practice**

• ONAP Amsterdam Release: 30-50%

• Sonar is available: [https://sonar.onap.org/](https://sonar.onap.org/)
Functional Test Case Testing

• This is about functional testing of your components, not the whole ONAP
• Beside Unit Tests, the team needs to have the confidence they have not broken their surroundings
• Functional Test Case must be automated
• Functional Test Case are developed by Team, executed locally and then within ONAP Jenkins
• What are the steps
  • All functional Test Case defined by M2 Functionality Freeze
  • 50% of functional test case implemented by M3 API Freeze
  • 100% of functional test case implemented by M4 Code Freeze
Java Code Style

• Practices Recommended but not Mandatory
• Not enforced for seed code
• For new code:
  - Practice Based on Google Java Style
  - 4.2 Block indentation: +4 spaces
  - 4.4 Column limit: 120
• Practice **Scrum, Jira How To**?

• We want to be Agile. What does it mean?
  - Focused and Transparent to the community

• Usage of 2 weeks iteration Scrum Board

• Simplified Jira workflow
  - Simplified **Workflow** (4 statuses: Todo, In Progress, Implemented, Done)
  - Simplified **Resolution code** (Unresolved, Done, Cannot Reproduce, Duplicate, Won’t do)
Members agree that all new inbound code contributions to ONAP shall be made under the Apache License, Version 2.0

- Anything **re-compile** MUST be **Apache 2**

- Linux Foundation runs **FOSSOLOGY** [16]

- Awareness of any executable embedded

[https://wiki.onap.org/display/DW/Open+Source](https://wiki.onap.org/display/DW/Open+Source)
• For Legal purpose, there is a need to record all Third Party code and libraries embedded within ONAP

• Info in FOSS Table (for both Open Source Code and Libraries):
  - Open Source Code Name
  - Version
  - License Type
  - Description
  - Link toward License Info
  - Notes (including reason not using Apache Version 2)

• Action:
  - Foss table for each project have been created in wiki
  - Fill out FOSS table for each projects (important for M2, but not show stopper for M1)
谢谢