



Proposal for ONAP Development Best Practices

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Scope

- 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/>

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**

Scrum and Jira

- 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)

Intellectual Property Compliance (1/2)

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>

Intellectual Property Compliance (2/2)

- 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)



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OPEN NETWORK AUTOMATION PLATFORM

谢谢