

CII Badging Program for CLAMP

Xue Gao, Pierre Close, Anael Closson

September 20, 2017

The CII Badging Program

- Core Infrastructure Initiative Website:
 - https://bestpractices.coreinfrastructure.org/
- Evaluate how projects follow best practices using voluntary selfcertification

- Three levels: Passing, Silver and Gold
 - LF target level recommendation is Gold
- ONAP Pilot Project: CLAMP
 - https://bestpractices.coreinfrastructure.org/projects/1197



The Questionnaire

- Edition is limited to a subset of users
 - Main editor can nominate other users as editors
- Divided into clear sections
 - For each section, a set of questions is provided, addressing best practices relating to the parent section
- Each question asks if a criterion is
 - Met, unmet, not applicable, or unknown
- Criteria are generally high-level as targeted to best practices, e.g.
 - "The project MUST have one or more mechanisms for discussion"
 - "The project SHOULD provide documentation in English"

The Goals

- Give confidence in the project being delivered
 - By quickly knowing what the project supports
- See what should be improved
 - Self-questioning helps project stakeholders identifying strengths and weaknesses, do's and don'ts
- Align all projects using the same ratings
 - Makes projects connected together to follow the same practices
- Call for continuous improvement
 - Increase self rating and reach better software quality



To Be Discussed

- Introduce test coverage rules: how many tests should be added for each code changes
- Digital signature: use digital signature in delivered packages (already in the plan?)
- Vulnerability fixing SLA: vulnerabilities should be fixed within 60 days
- Security mechanisms
 - Which cryptographic algorithms to use to encrypt password
 - The security mechanisms within the software produced by the project SHOULD implement perfect forward secrecy for key agreement protocols so a session key derived from a set of long-term keys cannot be compromised if one of the long-term keys is compromised in the future.
 - If the software produced by the project causes the storing of passwords for authentication of external users, the passwords MUST be stored as iterated hashes with a per-user salt by using a key stretching (iterated) algorithm (e.g., PBKDF2, Bcrypt or Scrypt).
 - The security mechanisms within the software produced by the project MUST generate all cryptographic keys and nonces using a cryptographically secure random number generator, and MUST NOT do so using generators that are cryptographically insecure

