



EOSC-Hub Technology Area description

Software Quality Assurance



eosc-hub.eu



@EOSC_eu

Dissemination level: Public

Disclosing Party: (those disclosing confidential information)

Recipient Party: (to whom this information is disclosed, default: project consortium)



- “Software quality assurance (SQA) consists of a means of monitoring the software engineering processes and methods used to ensure quality. The methods by which this is accomplished are many and varied, and may include ensuring conformance to one or more standards, Best practices for service deployment and interoperability checks” source: wikipedia

Standards:

- IEEE 730-2014 - IEEE Standard for Software Quality Assurance
- ISO/IEC/IEEE 12207:2008 (Software life cycle processes)
- ISO/IEC/IEEE 15289:2011

Guidelines:

- ESA Guide to Software Quality Assurance
- OWASP Foundation:
 - Secure Coding Practices
 - Source Code Analysis Tools
 - Dynamic Application Security Testing
 - Code Review Guide
- **“A set of Common Software Quality Assurance Baseline Criteria for Research Projects Software” White Paper INDIGO /DEEP / XDC**
 - **<http://digital.csic.es/bitstream/10261/160086/4/CommonSQA-v2.pdf>**

- Best practices for service deployment and interoperability checks
 - Software Development:
 - Best practices on how the service providers should handle the software development of their services.
 - Software release, support and management:
 - How to plan, build, test and deploy new version of software for EOSC services.
 - **Continuous integration approach:** automatic build and tests including Interoperability between EOSC services **following interoperability guidelines**

Best practices for service deployment and interoperability checks

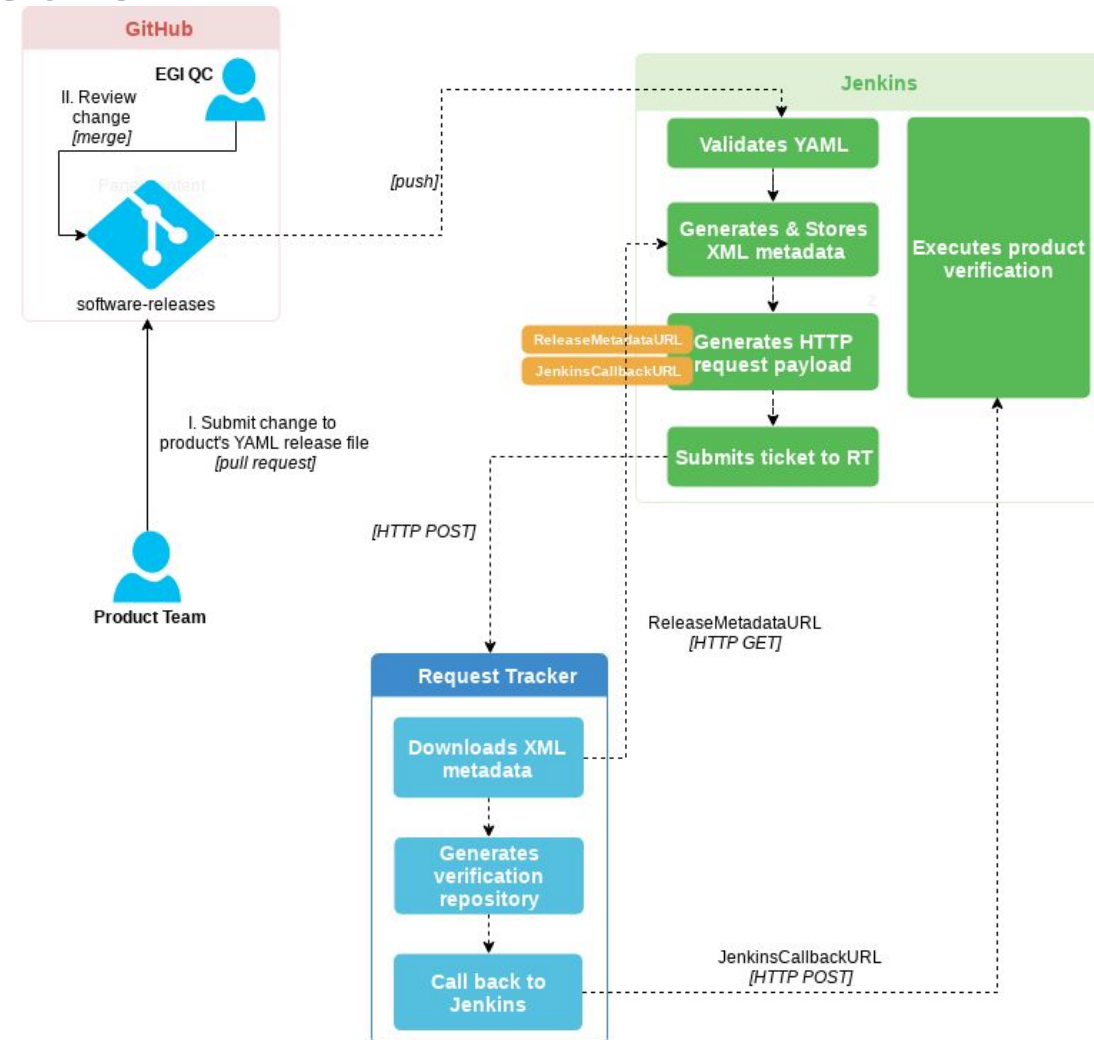
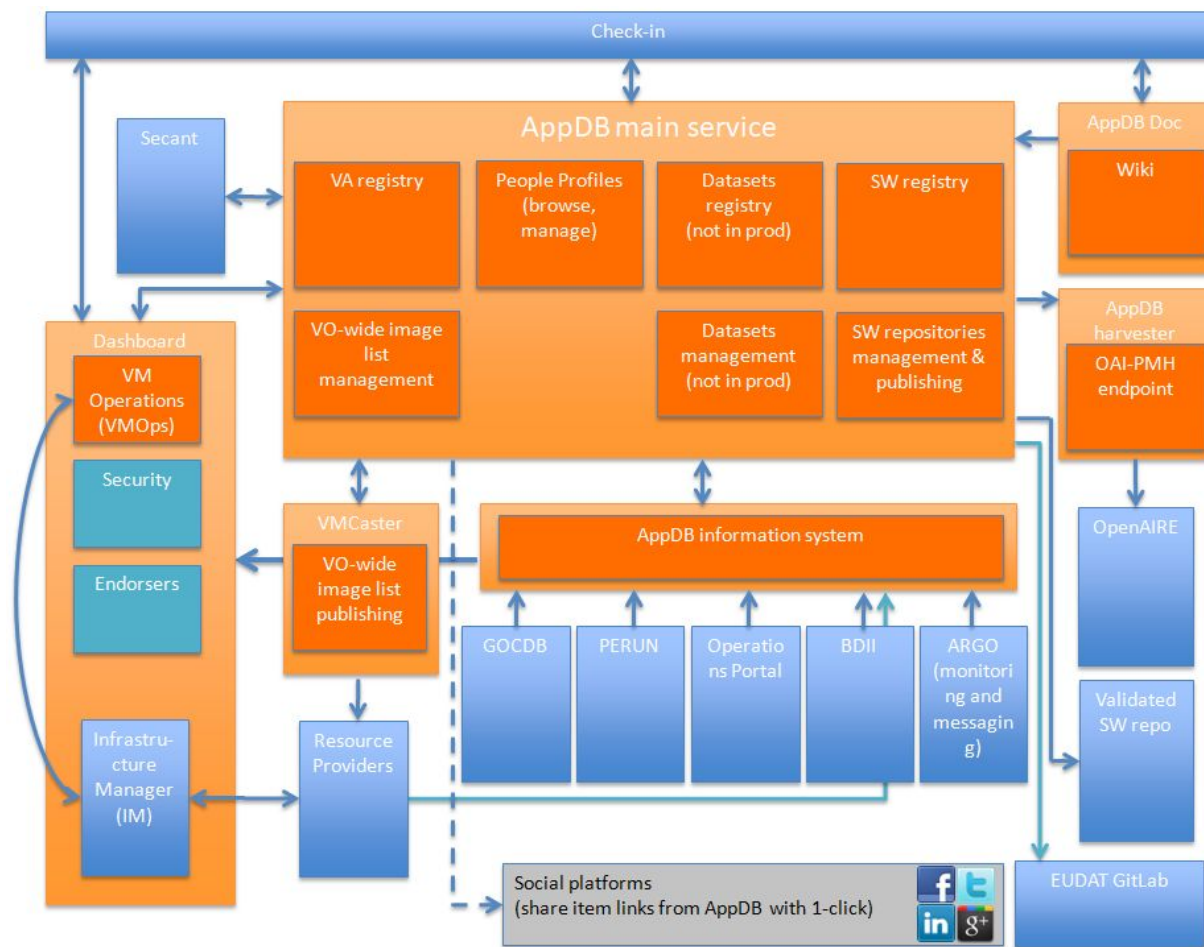
Services offering the **Software Development** feature:

- There are no specific EOSC-hub services that offer Software Quality Assurance at the code level
 - **The majority of the EOSC-hub services already follow some if not all of the guidelines but harmonization would be beneficial.**

Services offering the **Software release support and management** feature:

- EGI repositories: offers SQA for all products deployed with all macro features more tailored to site deployment software: grid and fedcloud
- EGI AppDB: subset of SQA (i.e. security) for Virtual Appliances

Best practices for service deployment and interoperability checks



Short term:

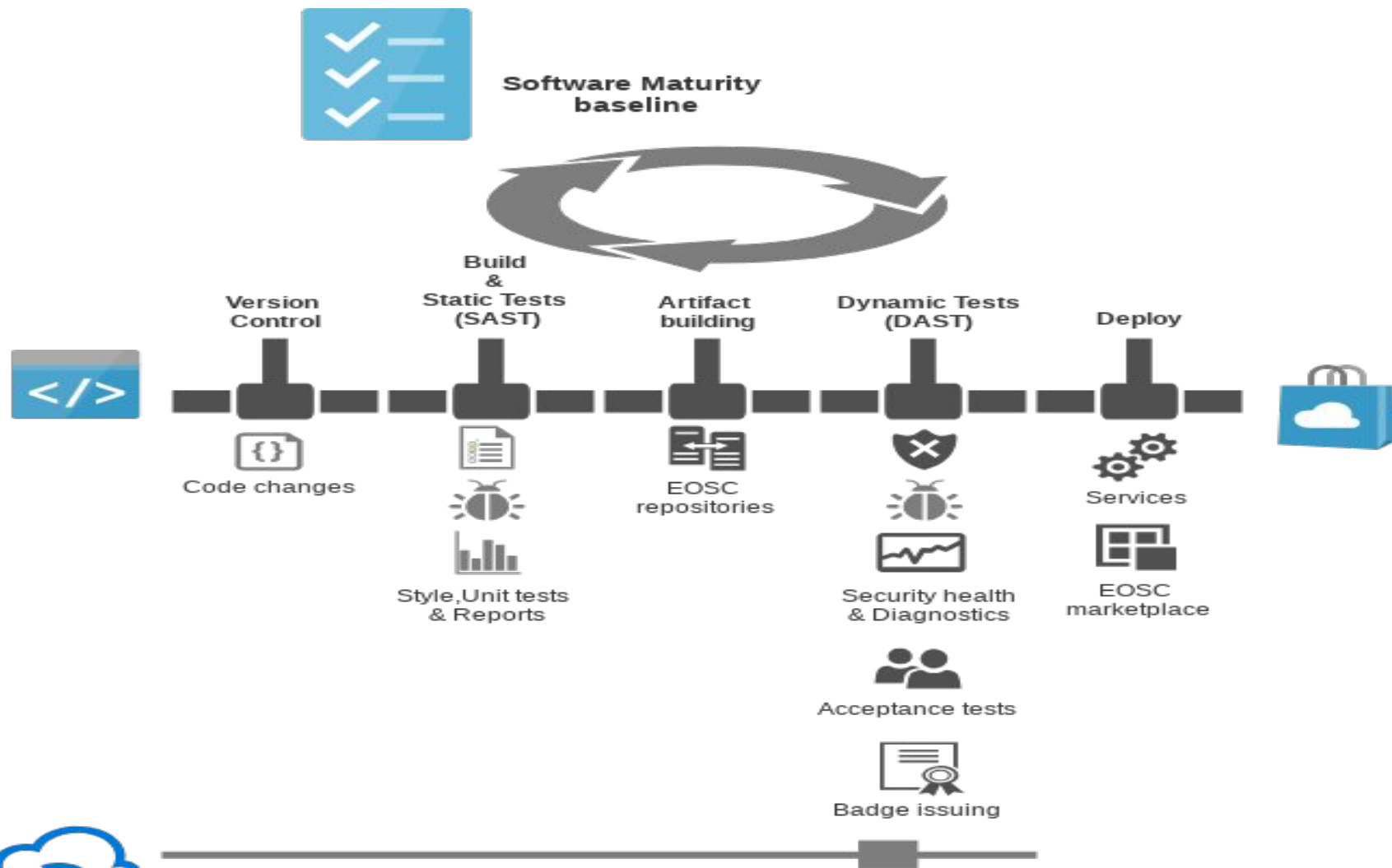
- Collect from uses cases which services need to communicate to who
 - List of technical requirements (WP10)
- Identify the technical area / services and look interoperability guidelines

Medium:

- Quality criteria definition and validation for each service category based on TCOM areas
- Extend for services the best practice SQA guidelines in EOSC-hub

Long term :

- How to implement SQA validation in EOSC-hub:
 - EOSC-Synergy: SQAaaS service (kick off meeting In September)
 - Offer SQA for software development
 - Extend scope of EGI repositories / Software provisioning to EOSC-hub services
 - Articulation with EOSC-hub Change Management in order to guarantee that the process is well implemented
 - technical requirements and interoperable (whenever they interact with external services)
 - deployed (reduce disruption on production)



Thank you for your attention!

Questions?



EOOSC-hub

Contact

Joao Pina <pina@lip.pt>

Pablo Orviz <orviz@ifca.unican.es>

 eosc-hub.eu  [@EOOSC_eu](https://twitter.com/EOOSC_eu)



This material by Parties of the EOOSC-hub Consortium is licensed under a Creative Commons Attribution 4.0 International License.