HARMONISING THE SOFTWARE DEVELOPMENT PROCESS IN THE GÉANT COMMUNITY

Introduction

The GÉANT software community takes part in the collaborative development of applications and products which support services delivery. Along with the progressive delivery of services, the importance of reliable and resilient software components has increased to meet the demands of users. Every service in GÉANT has to be developed with the highest quality attainable in order to fulfill the demands of the research and education community, and on the other hand complement services provided by member NRENs. Efforts described in this paper are tackling the challenge of harmonising the software development in GÉANT services. Additionally, the SWM team performs secure code and quality code audits of services in transition and in production and organisation of trainings (School of Software Engineering, Secure Code Training) for the GÉANT software community. Harmonisation and improvement of software management and development processes in G4-2 aims to help software development teams to:

- Keep to the project budget.
- Minimise project delays.
- Improve product quality.
- Improve the probability of project success.

This can be achieved by improving the awareness of the effective software development methodologies (SDMs) and/or best practices. The SWM team started by exploring the current development practices, with the aim to learn what could be done to improve the efficiency of SDMs, what obstacles they have faced, etc.

In that process, the SWM team encourages the developers to share their experiences and discuss methodologies applied in day-to-day work. The current situation in GÉANT regarding the software development methodologies usage was taken into consideration to build solid grounds and determine the list of required activities for future actions.

GÉANT Software Catalogue

More than 30 software projects are being developed by around 20 software development teams of highly skilled professionals originating from different member NRENs. There is a number of retired software projects as well. A central and complete project catalogue is a must-have feature for federated community of software developers, to gain maximum benefits for collaborative work and alleviate some negative effects of team distribution, partial involvement to the project and silos. Such information repositories are present in large software communities (e.g. Apache Projects Directory), and evolve together with a growing portfolio of software projects.

The GÉANT Software Catalogue is a web-based service acting as a front-end for existing databases and software repositories. It can complement the existing front-end for existing databases and software repositories. The information in a unified and harmonised way.

Supporting the software community

GÉANT Symposium 2017 – side meeting

The objective of the side meeting was to gather software developers from across GNA-2 as a forum for exchanging ideas and identifying any issues and obstacles that they are facing in their day-to-day work. The usage of the SDM was a focal point during the meeting. Participants were encouraged to engage in a discussion about software development methodologies they are using. The most important points that were highlighted during the meeting were:

- There is an awareness about the SDMs within GÉANT teams and some have observed tangible benefits from using SDMs selectively.
- The teams that have applied selected SDM practices rely on Scrum, Kanban or XP and are often adjusting processes (e.g. extending time periods) to their abilities.
- Most of the attendees confirmed their interest in participating in a workshop about practical implementation of SDM.
- Most of the attendees also expressed their interest in participating in a new task force on this matter.

Planned activities

In accordance with the aforementioned, the SWM team took suggestions for the creation of a proposal for a Task Force on Software Management and Development (TF-SMD) in order to support the development and service provision for GÉANT and NREN software development teams and promote the use of best practices for software development. TF-SMD would create the opportunity to introduce the industry practices and standards as well as lessons learned from other institutions. Additionally, TF-SMD would get familiar with NRENs' experiences in building the SDTs, help to include the NRENs practices into GNA-2 and act as a connection between GÉANT, NRENs and industry in the field of software development.

Contact us

This SA2 T1 team is waiting for your comments and suggestions regarding the harmonisation of the software development process in GÉANT community.

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