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N4S-Case Plan/N4S-C _Name

Need For Speed
Phase I 1.1.2014-31.12.2014

27.5.2014

V1.0

1.1 N4S Case Name

N4S Case	Re-engineering development process to radically streamline it and allow experimentation in B2B software development
Owner Organization	**Steeri Oy**
N4S-Case Owner	Sami Helin sami.helin@steeri.fi +358504033381 Development Director
Research Coordinator	Kristian Rautiainen kristian.rautiainen@aalto.fi
N4S Case overview	Disconnection of tools for developing software and tools for planning, documenting and testing it produces a lot of disconnected and double work. It also prevents experimenting and more continuous deployment as different parts of the process can't be held in sync or require too much manual work. We propose a collaborative use case development process where an integrated toolset and process is used to carry an use case through the process with a single point of access. Different phases in the development process contribute to the same documentation and documents and plans contribute to development instead of standalone artifacts – and on the other hand development provides documentation and input to testing and deployment. Bundling use case development and documentation together also enables tracing the full process back for each "miniversion" – which tests and documents were related to each version. This is not possible in traditional development where there are several manual steps involved in version deployment Description of the N4S Case, overview of work to be done.

V1.0

- Investigate and adopt tools and processes for automating phases in the process and get development and documentation and planning tools to support each other more efficiently

  o Collaborative use case development to cut half off the traditional model where there is enormous burden keeping documents and test cases up to date when functionality evolves.

- Another objective is to manage customer specific or experimentational parts of software to enable more flexible development

  o Managing customer variability and experimenting features without compromising core functionality. These customer specific and experimental parts may become part of the core product later based on the analysis of experimentation results

- Both above mentioned objectives serve a more continuous experimentation and deployment process. However, it is relatively little investigated area in B2B context. Thus one key task would be to investigate continuous experimentation and deployment in B2B software environment – specific challenges and best practices

Key Tasks & Results

Task 1: Investigate continuous experimentation and deployment in B2B software environment

Task description: Find out specific challenges and best practices for B2B software development. Investigate current studies and practices and what is done in B2C branch

Main results: Research paper

Task 2: Develop collaborative use case development model

Task description: Different phases in the development process contribute to the same documentation

Main results: A collaborative environment for specifying, testing descriptions and documentation. A place where best of breed tools can link their needed and produced information

V1.0

Task 3: Investigate and adopt tools that enable closing the gap between specification, planning, development, testing and documenting

Task description: Investigating and adopting tools to make documents and plans contribute to development instead of standalone artifacts – and on the other hand development provides documentation and input to testing and deployment

Main results: Investigated, evaluated and prototyped toolset for integrated development process

Task 4: Managing functionality variability between instances

Task description: Manage customer specific or experimentational parts of software to enable more flexible development

Main results: Process for running same code base with different function set and investigating and measuring usage practices between instances (not physical instances, but different customer environments)

Industrial Organizations/Role	Steeri/Business case owner/Sami Helin
Research Organizations /Role	Aalto University
Global Impact and collaboration	Impact to the business globally, collaboration with companies/research outside Finland/new value networks