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(57) Abstract :

This invention named HSScrum • is the integration of traditional Scrum model being used widely as process model for software development and a security process which is hybrid and flexible to leverage productivity and optimize the development process. The invention has Scrum based functions with security provisioning and a novel security process that is seamlessly integrated with the Scrum model to realize HSScrum. As the traditional Scrum with security provisioning contains necessary phases in the System Development Life Cycle (SDLC), it needs integration of security process that is more beneficial and ensures that the development process is optimized. HSScrum realizes this objective with the loosely coupled (in the sense of flexibility) security process integrated with Scrum with security provisioning. The invention has a risk identification process that not only finds risk and rank the user stories based on risk, it also has provision to know whether risks are specific to a backlog item or multiple backlog items (cross-cutting security concern). The mapping and delegation process has mapping of security concerns to backlog items and also a hybrid approach in delegation is preferred. Based on the security expert availability and cost analysis, the delegation may be immediate delegation or deferred delegation. This brings about balance between cost and faster intermediate deliverables to client. This invention has many benefits to stakeholders such as programmers and developers who follow agile model such as Scrum for software development process, Scrum master, agile security practitioners, software development organizations, researchers and academia.

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