

Press Release – ObjectSecurity part of European Space Agency (ESA) project “Next Generation Requirements Engineering” (NextGenRE)

(Cambridge, UK, and Palo Alto, CA, USA – 24 November 2010) – ObjectSecurity, the leader for model-driven security, today announced that they have been awarded a subcontract by Intecs to work with a consortium on the project Next Generation Requirements Engineering (NextGenRE) for the European Space Agency (ESA). The project concerns investigations to improve the state of the art of Requirements Engineering for Space Systems in the context of the ECSS standards in support of the Model Based Systems Engineering.

The main goal of this study is a practical short and medium term improvement of Requirements Engineering in Model-based system engineering (MBSE) of space missions. Requirements engineering involves requirement analysis and validation, requirement allocation, and requirement maintenance. Requirements elicitation and documentation are core activities of system engineering. MBSE is the formalized application of modelling to support system requirements, design, analysis, verification and validation activities from the initial phases of the system life cycle and continuing until the demission. MBSE is expected to replace today’s document-centric approach. The principal problems to confront include addressing the inherent ambiguity of natural language requirements expression, enhancing requirements representation to capture the semantics of engineering and mathematical constraints, establishing a sound and practical basis for the exchange of requirements between tools and environment, and formulation of a strategy for adopting next generation requirements engineering in the space system lifecycle, embedded in a full MBSE context.

Rather than document-based taxonomies and glossaries, we will implement domain specific languages for requirements definition that point the way to an eventual full ontology-based RE tool support. We will go directly to the heart of the problem of engineering and mathematical constraint specification with the definition of robust metamodels that integrate smoothly into the overall requirements specification metamodels resulting in measurable improvement in the traceability of artefacts from RE to all the other phases of the space systems engineering lifecycle.

The consortium will exploit its strengths to provide effective solutions to these problems in the timeframe of the project with considerable reduction of risk: Deep experience with model-based methodologies for Space (esp. Intecs and TAS), and with model-based tool support. All partners in the consortium are fluent with the tools and environments of MBSE, with deep experience in the implementation and use of Eclipse-based tools, from metamodel definition to graphical user interface generation to plugin development. ObjectSecurity is the thought leader for model-driven security.

ABOUT OBJECTSECURITY – ObjectSecurity has strong expertise in model-driven approaches, and is the thought-leader in model-driven security. ObjectSecurity’s OpenPMF™ 3.0 product is based on model-driven security. It makes application security & compliance policy management, enforcement, and reporting easier through automation. It can protect applications across many technology platforms, including SOA, Cloud, and Web 2.0. It reduces cost/effort, aligns business and IT, enables secure IT agility, and enhances security. It offers far better flexibility and manageability than traditional identity management and authorization management solutions. The award-winning OpenPMF has already been used in several DoD project and is currently being deployed for a U.S. Navy production environment. ObjectSecurity has an excellent R&D track record that includes several other EU R&D projects: COACH, an FP5 telecoms application platform project; AD4, an FP6 air traffic control simulation system project; and SWIM-SUIT, an FP6 air traffic management system-wide information management project. Other R&D projects include SBIR subcontracts with RTI for US Navy and US Air Force, and R&D projects for US Naval Research Lab, UK Ministry of Defence, Deutsche Telekom T-Systems, UK Cyber Security KTN and others.

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