

GOAL

Standardisation of compliance test procedures related to Arrowhead Framework. This will be in support of the Compliance Test Tool (CTT) and will help define service candidates for standardisation.

Challenge

BnearIT will contribute with service specifications and system definitions according to the Arrowhead Framework. The Arrowhead Tool chain architecture will have to have capabilities for remote control and configuration as well as capabilities for exchanging information, both in a control/configuration context and in a data/information context. These services will have to be engineered for the Tool chain to be able to dynamically adjust to the requirements at runtime. They will contribute with the expertise in dynamic configuration of services and the knowledge of key information that needs to be conveyed in the tool chain.

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Moreover, BnearIT will contribute to the tool chain architecture with knowledge and prototypes of tools in order to evaluate the framework. Furthermore, BnearIT, will state the needs of a tool repository in order to be able to store and distribute the various tools.

Deployment engine for production related sensor data

BnearIT will participate in requirement specification of distribution services for the Arrowhead Core Framework. This distribution service should be capable of deployment of both executables, configurations and data.

Virtual Commissioning of a Cyber-Physical System for increased flexibility

BnearIT will participate in requirement collection of distribution services for the Arrowhead Core Framework. In this subtask the focus will be the deployment engine used for distribution of a CyberPhysical System.

Secure sharing of IoT generated data with partner ecosystem

BnearIT will participate in gathering of requirements, define challenges and solutions in secure data sharing. Information about operational needs, appropriate solutions and tools will be collected. Based on that, requirements regarding solutions will be specified and presented in a set of documentation.

SOA Framework platform performance, implementation updates

BnearIT will also investigate the current performance of the Core systems and its services in order to establish a performance baseline. The task will include definition of recommendations of where to put the effort in increasing the performance of the platform systems.



Engineering Phases



Exploitation

TBnearIT will benefit of improvements of the **Compliance Test Tool**, the **Sandboxing Tool**, the **Design Support Tool** and the **Monitoring Tool**. The tools will be used within current and future software development projects at BnearIT. Bnearit will also use the integration platform and benefit in an improved architecture of the Arrowhead core system that will strengthen marketing position at BnearIT.

Likewise, BnearIT will exploit results from the Arrowhead Tools project within the project. External seminars where the tools are presented and demonstrated will be performed, where customers are invited to participate. BnearIT will make the result a part of its offer to the market in the area of Service Oriented Architecture and Systems Integration. The results will be presented on BnearIT's website. A community addressing the use of these tools will be established within the EU focusing in the Command & Control domain.

Partner Data



BnearIT AB is an IT consultancy located in Luleå in the North of Sweden. The company's main occupation is systems integration, with four different branches: Industry (primarily the mining and paper industries), Web content management, Tele communications and Embedded systems. All branches share the service-oriented architecture as the basis of the integration.

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