AIRBUS

Call for pitches – Guidelines for R&T topics

Topic of interest: Cybersecurity

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Short description of research topic:

Secure networking and communication technologies through better cyber-protection.

Detailed areas of research proposed:

This area of research focuses on the use of novel technologies to improve security of information exchange for military but also any type of sensitive networks.

The focus of proposals will be on the use of novel security techniques to identify users and protect the exchange of information in what will be more and more open and multi-system military communication networks.

The development of new methods, techniques or principles improving the software, platforms, end-to-end system will be of interest for the area of focus of the proposed research and technology projects.

Target results foreseen (e.g. maturity level to reach, deliverables to produce, estimated timing, etc.):

The future for sensitive and restricted communications is to be more and more flexible, with a simplification of the management of all the complex systems involved in the chain. The use of data-cloud systems, open networks, and even 5G network architectures and systems to exchange classified data, brings a set of very strong requirements for a proper protection and possibilities to exchange multi-level restricted information.

These new cybersecurity and protection systems will need active cyber-monitoring centers actively scanning the networks for suspicious or malicious activity.

They will also need to have strong authentication systems and allow users, in a dynamic form, the visibility only of the information they are allowed to access. Avoiding the needs to duplicate communications or generate different versions for each audience.

The results foreseen for the research are an improvement of efficiency, cost-effectiveness, quality and security of secure communications, making them more and better adapted to future scenarios where they will be more and more widespread and can be performed with smaller, easy-to-use, always ready equipment under most circumstances.

The objective will be to develop a three to five year project maturing valid technologies that can be applied in future communication networks.

Understanding the current state of the art, the steps will be drafted to take a low TRL technology and mature it towards a proof of concept or demonstrator which can show its benefits and possibilities if it would be integrated on a future platform.

Other relevant aspects to consider (e.g. previous experience required working in Defence and Space sector, access to specific facilities or laboratories, etc.)

The understanding of the military use-cases, needs and particularities would be good but is not a must.

A clear expertise in the technological area and possibilities to bring to the consortia material, laboratories, test-facilities and workforce would be of high interest.