



PRESS RELEASES

Thales, a major player in the field of software-defined radio



FlexNet: more than 1.500 units ordered

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Thales is strengthening its leadership in new-generation communications systems by participating in the ESSOR [1] European project aimed at establishing European standards for secure software-defined radios. Thales also provides a range of software-defined radios called FlexNet, the first field tests of which have been successful. As a decision-making tool in fields of operation, software-defined radios are key components in battlefield digitization.

Thales is a key player in the ESSOR project, a joint initiative of 6 European countries to cooperate in the software-defined radio field. ESSOR represents an investment of more than €100 million. It aims to improve interworking between European forces through the definition of a European standardizing reference base for software-defined radio. Thales thus strengthens its position as leader in the software-defined radio field in Europe and becomes a major player in the standardization of software-defined radio.

To do this, the ESSOR program must first of all define and have certified a new software architecture standard called ESSOR SCA, developed on the basis of the SCA (Software Communication Architecture) standard created by the United States as part of the JTRS[2] program. The objective is to supplement some sections of the current SCA standard, particularly in the security field, and so make it possible to have the equipment from European suppliers certified.

ESSOR also aims to define a new secure high data rate waveform called ESSOR HDR developed on the basis of the new ESSOR SCA architecture and dedicated to coalition operations. To meet the new networking requirements of units in the field, coalition operations require the deployment of joint waveforms that guarantee interworking between forces. This waveform will subsequently be validated on several platforms by the 6 companies involved.

FlexNet: the first Software-Defined Radio tested in the field in Europe

Thanks to the cooperation with Rockwell Collins, Thales is in a position to currently offer FlexNet, the first SCA-compliant international SDR platform. This transatlantic cooperation was formalized in 2006, and produced its first results in 2008. Field tests during 2008 in France and Sweden confirmed that FlexNet's performance met the operational requirements: video links between moving vehicles were provided over ranges up to 25 km, demonstrating the effectiveness of the FlexNet-Waveform high data rate waveform.

FlexNet, an innovative solution already adopted by several countries

Based on multi-band and multi-channel platforms and

designed to an open and reliable architecture, FlexNet radios are fully compatible with the SCA (Software Communication Architecture) standard. Thanks to its new ad hoc networking and high data rate capabilities (several Mbits/sec), FlexNet considerably increases the quantity of information that can be exchanged between users, creates new options for organizing cooperative combats between different units and offers the greater mobility required by armed forces.

The FlexNet range includes:

- FlexNet-One: a compact high-capacity multi-band and single-channel radio
- FlexNet-Four: a versatile multi-band and multi-channel radio
- FlexNet-Waveform: a high data rate ad hoc networking waveform

Pierre Sulsenschi, Director of the Tactical Communications business line at Thales said: "A major export contract for more than 1500 radios won at the end of 2008 launched the FlexNet radio into production. On the basis of the ESSOR contract, Thales is able to offer a high-performance software-defined radio solution with guaranteed compatibility with the future standards."

[1] ESSOR: European Secure SOftware defined Radio

[2] Joint Tactical Radio Systems