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## Taking advantages of modern distributed infrastructures in modelling and simulation

(Conference Paper)

Buora, G.B. , Giusti, C. , Barbina, M. Selex ES, Ronchi dei Legionari (GO), Italy

### Abstract

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During the last years, we are experiencing the overwhelming growth of on-line services. Web applications are able to provide such services, by using cooperative, heterogeneous, decentralized and distributed infrastructures and several technologies like consolidated Service-Oriented Architectures (WSDL, WSMO, SOAP, etc.) or emerging Resource-Oriented Architectures (e.g. RESTful, etc.). When we talk about Modelling and Simulation, HLA is the de-facto standard for what concerns interoperability: such a standard, like others less used, gives different simulations the capability to interoperate together, but nothing is done for what concerns the implementation or the exploitation of services in order to give added value to the already existing simulations. This paper investigates the capabilities and benefits provided by modern infrastructures currently adopted in the Web world, highlighting which kind of resources are available today online and can be accessed to enhance the quality of the simulation; then presents Selex ES approach to simulation, the SYENAsynthetic environment, which by integrating the traditional HLA standard with modern Web technologies allows to realise more convincing and impressive simulations. © Springer International Publishing Switzerland 2014.

### Author keywords

Distributed architectures; Interoperability; Simulation techniques

### Indexed keywords

**Engineering controlled terms:** Information services; Interoperability; Social networking (online)

De facto standard; Distributed architecture; Distributed infrastructure; Modelling and simulations; Resource-oriented architectures; Simulation technique; WEB application; Web technologies

**Engineering main heading:** Service oriented architecture (SOA)

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