

Simulation capabilities for safety-critical network planning

Universidad Politécnica de Cartagena and FREQUENTIS to cooperate

Universidad Politécnica de Cartagena (UPCT) and Frequentis signed a collaboration agreement to provide improved network design services to customers in air traffic management (ATM) by utilising the Net2Plan network simulation tool of UPCT. The tool enhances the Frequentis vitalsphere solution portfolio, delivering ATM-grade network performance.

Net2Plan is an open-source tool for planning, optimisation and evaluation of communication networks developed by the Telecommunication Networks Engineering Group at the UPCT. Initially planned to assist the teaching of communication networks it developed into a powerful network optimisation and planning tool for academia and industry. It allows the end-to-end planning, simulation and optimisation of networks including carrier components, enterprise network components of the customer, and now also products of the Frequentis vitalsphere solution portfolio.

vitalsphere is the Frequentis solution to deliver ATM-grade network performance, which is essential for on-going changes in air traffic control, such as, SWIM, remote towers and virtual centres. With exceptional end-to-end performance, vitalsphere helps to maintain the highest level of safety while scaling capacity and improving cost competitiveness.

“For safety-critical applications the design of the network is vital. Net2Plan enhances our network design services and allows simulation and optimisation of the real-world behaviour within our vitalsphere solution we deliver to clients worldwide”, explains Wolfgang Lins, Technical Program Manager for air traffic management networks at Frequentis, the overall benefit of the cooperation.

vitalsphere is designed to support air traffic management services via multiple networks according to the particular requirements of air traffic management. It needs to support concepts of operation that are not fully covered by conventional IP networks. UPCT and Frequentis welcome students for thesis in context with this cooperation.

“The agreement with Frequentis enables us to utilise planning and simulation techniques within network design services. Thereby we will expand Net2Plan to replicate the specifics of the vitalsphere solution portfolio”, says Dr. Pablo Pavón Mariño, head of the Telecommunication Networks Engineering Group (GIRTEL) at the Universidad Politécnica de Cartagena (UPCT).

“As a well-known partner in research and development activities we are glad to initiate this cooperation and to introduce students to the industry needs. We really appreciate the interest in our products and services, which are designed to support a safer world”, added Hannu Juurakko, Vice President ATM Civil at Frequentis.

About FREQUENTIS

Frequentis is an Austrian based international supplier of communication and information systems for control centres with safety-critical tasks. These control centre solutions are developed and distributed by Frequentis in the business segments Air Traffic Management (civil and military air traffic control, and air defence) and Public Safety & Transport (police, fire and rescue services, emergency medical services, vessel traffic and railways). Frequentis maintains a worldwide network of subsidiaries and local representatives in more than fifty countries. The company's products and solutions are behind more than 25,000 operator positions in over 120 countries. With this extensive portfolio, Frequentis is the leading provider of voice communication systems... all making our world a safer place every day!

For more information, please visit www.frequentis.com

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