Multimillion-dollar scheme probes software bots

Jennifer Foreshew
Research

AUSTRALIAN researchers have joined an international consortium investigating intelligent agents, or softbots, for service-oriented computing systems.

Victoria's Swinburne University of Technology is heading the local contribution to the Australian-European Union consortium, which brings together 21 university and industry partners specialising in telecommunications, enterprise systems and telematics.

The Swinburne team, which involves Ryszard Kowalczyk and Jun Han from the Faculty of Information and Communication Technologies, will develop agents to automate interchange and composition of software and services via the internet as part of the project.

The research will target software components that coordinate business activities such as supply, distribution and sales.

Professor Kowalczyk is developing decision-making and co-ordination mechanisms that allow agents to negotiate and compose complex services with others like them over the internet.

"This approach will help businesses to seamlessly integrate applications across different organisations," he says.

The intelligent agents could adaptively respond to changes in the environment, assess risk and learn from their experience.

Swinburne is the only non-EU member of the multimillion-dollar consortium, which began in September 2004. It will initially run for two years, and may be extended for three more years.

Professor Han says the project will aim to establish security and performance guarantees, ensuring service quality and compatibility between software products.

While such tasks are mostly manual and inflexible, in the future they will be done by softbots for a business.

"It will mean we can predict, even before the system is put into production, what sort of security it can guarantee and what sort of things it can deliver," Professor Han says.

Swinburne is co-ordinating one of six components of the project.

The university has jointly received $1.5 million towards its research from the Commonwealth Department of Education, Science and Technology and Australian companies.

Australian industry partners collaborating on the project are Telstra, the Defence Science and Technology Organisation and Everyday Interactive Networks, which will be the first local adopters of the system.