

Securing Mobile Internet Services

Workshop 4f: 16:00 Thursday 20 October 2005

The computing industry and the telecommunications industry have been converging for some time now. This convergence is driven by the reuse of underlying physical infrastructures for telecommunications and for data networking. The converged services tend to use the TCP/IP protocol suite for both telecommunications and data networking services.

Both types of these types of network services have been pushing wireless mobile access for end-user terminals. These mobile access networks offer the potential for a pervasive mobile Internet where a rich set of new services can be created and deployed at lower costs and with more functionality than mobile services to date. One particularly active area of research is in location-based mobile services, where information about a user's location interacts with the service logic to enable a range of new opportunities.

A major concern with these scenarios is security. This workshop aims to bring together the results of a number of FP6 EU IP projects, relating the results relevant to security: SecurIST, SEINIT, and Daidalos.

This workshop will address a range of issues relating to the security of mobile Internet services. These range from the lower level issues of securing the TCP/IP protocol suite (in particular the use of IPv6 and the use of IPSec) through to higher-level application issues with mobile services. This incorporates issues of secure authentication and digital identity, and the relation of these concepts to an overall security framework.

Objectives

This is an attempt to open up the debate on securing mobile Internet services to a diverse audience, connecting with the wider ICT research community including industrial researchers. The presentation does not relate to a well-defined technology set that is ready for commercial exploitation at present, but some aspects may provide the impetus for commercialisation. Some of the work being reported is of immediate practical value; some is more speculative mapping out future research concerns.

Target Audience

The work described comes from an applied research background mixing academic research centres and industrial research centres, and a number of larger and smaller companies. Thus the assumed audience is a mixed one where industry, academic and the EU officials can meet to discuss trends in this area, and potentially map out new collaborations to progress work in this area.

Programme

Security and Mobile Internet Services: IPv6 and Security

Mícheál Ó Foghlú, Irish National IPv6 Centre, Ireland

This presentation looks at issues relating to the lower level security of mobile Internet services. It emphasises the need for IPv6 from a security perspective.

Daidalos Security Framework for Mobile Services

Kevin Doolin, TSSG, WIT, Ireland

This paper reports on the interim results of the Daidalos EU FP6 IP project in terms of security for mobile services. The focus here is on well-defined scenarios to act as a catalyst for innovative integration of a wide range of mobile service techniques, within an agreed security framework.

SEINIT: Security for Heterogeneous Mobile Network Services

John Ronan, TSSG, WIT, Ireland

This paper will present the results of work done in creating a model for securing mobile services using heterogeneous access networks, and implementing sample solutions using this framework.

This is a project which is defining new security models and policies to address the new issues of the pervasive computing world. They are implemented over IPv6 infrastructures to cover various business cases and assessed against real life scenarios. SEINIT is developing a trusted and dependable security framework, ubiquitous, working across multiple devices and heterogeneous networks, being organisation independent (inter-operable) and centred on the end-user.

Planning for Security in the 7th Framework Programme

Jim Clarke, Security Task Force, Ireland

This paper will take a longer-term view on the major challenges facing Europe and the world in terms of creating secure and dependable services in ICT. This leads to the potential to help input ideas into a roadmap for the future of security research in the EU, helping to define a strategy for FP7 funding for security research.

Discussion