Security at the Edge of the network

The SECURED project provides protection of mobile devices from Internet threats by offloading execution of security applications at the edge of the network such as home gateway.

Summary

People are using a lot of services that works over the Cloud Computing. Inside these apps we can find the social networks, the email, online storage etc. Security and privacy are becoming major concerns for actual users since they want to have more control over their data. Our group is collaborating with this European project to elaborate architectures that can carry this security with a low overhead and in a transparent way for the final user.

Objectives

1. The Secured architecture aims to create a trusted and virtualized execution environment allowing different actors (e.g. single users, corporate ICT managers, network providers) to install on-demand and execute multiple security applications on the network edge device to protect the traffic of a specific user.

2. Secured will create an uniform security environment independent of the user device and network connection, offering also protection for Internet-of-Things environments, where nodes typically have limited computational and communication capabilities.
3. Secured aims to build open specifications and sample open-source implementations for the creation of trusted network security applications, policy-based security configurations, with support for hierarchical and multi-source policies, and also a security marketplace to trade applications and exchange best-practice policies.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación