

ED STIC - Proposition de Sujets de Thèse pour la campagne d'Allocation de thèses 2011

Titre du sujet :

Mention de thèse :

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Description du sujet :

P2P is ubiquitous today. Indeed, P2P communication is not limited to file replication, e.g., BitTorrent, but also includes all direct communication between any two end-users (e.g., VoIP). Moreover, the P2P architecture is highly scalable and efficient for end-users and content providers. However, it fundamentally changes the trust relationship between end-users and content providers. Indeed, with a client-server architecture, the end-user trusts the content provider to do not disclose personal information like the downloaded contents. However, with the P2P architecture, each peer cannot trust any other peer that it will not disclose personal information. Moreover, by its architecture, the P2P architecture makes massive crawling and monitoring of peers (see the Bluebear project planete.inria.fr/bluebear) possible at a low cost. The goal of this Ph.D. thesis is to assess how harmful attacks on the P2P architecture can be to the privacy of end-users, and which solution can be designed to mitigate those issues so that, for instance, a commercial and large scale system can be designed for multimedia content distribution using the P2P architecture.

URL :

<http://www-sop.inria.fr/members/Arnaud.Legout/positions.html>

English version: