

## PROJECT / TRAMANET – Traffic and Trust Management in Peer-to-Peer Networks

# TRAMANET

### Main Objective:

The objectives of this project are the following: 1) Development of a methodology to detect P2P file-sharing traffic in local area networks for further blocking of its source. As far as we know only limited solutions for this problem are available, which lead to large performance degradations even at moderate network speeds (e.g. 100 Mbits/s). The methodology to be developed might be validated in an experimental environment. It is expected that the method and apparatus for the detection of P2P traffic should result in an international patent. 2) Proposal of a new trust mechanism for P2P system, taking into account the dynamic properties of peers and avoiding a large traffic overload. A trust model addressing both problems is lacking. The new trust model based on dynamic weights for P2P networks will be investigated in order to overcome both problems. 3) Development of a framework for vulnerability assessment of peers and their trust mechanisms. This work is pioneer and will study the effects of system and trust mechanism vulnerabilities and threats in P2P communities.

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