

Self-Management for Unified Heterogeneous Radio Access Networks

Author(s) - Institution(s):

Remco Litjens, TNO
Fredrik Gunnarsson, Ericsson
Berna Sayrac, France Telecom
Kathleen Spaey, iMinds/University of Antwerp
Colin Willcock, NSN
Andreas Eisenblätter, atesio
B. González Rodríguez, Telefónica
Thomas Kürner, TUBS

Corresponding author email: remco.litjens@tno.nl

Corresponding WG group: WG3

Abstract:

The development of self-management solutions for (multi-technology, multi-layer) mobile communication networks is driven by their increasing operational complexity. Initial stand-alone SON (Self-Organizing Networks) solutions are already available, but are not sufficient to handle the networks of tomorrow. In this paper we present our approach at developing a unified management framework that integrates the existing and future advanced SON functions across several radio access technologies. The envisioned self-management system comprises (i) an integrated SON management system, in charge of policy transformation/supervision and conflict detection/handling; (ii) advanced multi-RAT/layer SON functions; and (iii) a Decision Support System providing measurement-based assistance for residual operational tasks, such as timely recommendations for targeted new site deployments.