WWTF Project ICT10-027

Optimization Challenges in the Operation of the Future, Federated Internet (OptFI)

Abstract

This research project will aim at the real-world issues of optimization challenges in the operation of the Future, Federated Internet. The Future Internet (FI) will consist mainly of a large number of overlays, which are consolidated into a single physical infrastructure by Network Virtualization (NV) techniques. NV and Network Federation, which is the voluntary collaboration of networks and network resources, are expected to provide new features to the FI and overcome at least some of the shortcomings of today"s systems. Efficiency requirements prohibit the operation of parallel and physically separated networks and ask for optimal resource utilization, especially under the aspect of timely restricted collaborations. A strong exploitation of resources and other constraints can only be provided or obeyed by an optimized combination of the federated resources. The system concept and applicable methods for the optimization of the federation will be investigated in this project.

Keywords:

Future Internet, Combinatorial Optimization, Network Operation, Network Design, PerformanceEvaluation

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Further links about the involved persons and regarding the project you can find at

https://archiv.wwtf.at/programmes/information_communication/ICT10-027