



Presentation – MEDIEVAL collaboration with FI-WARE

In the framework of the MEDIEVAL project, researchers from Alcatel-Lucent Bell Labs France are actively contributing to the development and standardization of the IETF ALTO protocol. The ALTO protocol provides guidance to applications that offer the choice among several application endpoints to trade resources with, on which endpoint to select. ALTO enables fixed and mobile service providers to inform application clients about endpoints costs, in terms of e.g. routing costs or hop count. Selection of application endpoints is therefore enhanced with respect to traditional systems such as Geo-DNS. The use cases envisioned by the IETF ALTO WG include peer to peer applications, content delivery services, data center based services and in general all the services that can benefit from an optimal endpoint selection, potentially changing over time. In this context the MEDIEVAL project has developed a use case for ALTO clients and servers for optimal video content delivery over heterogeneous wireless broadband networks.

The high-level goal of the FI-WARE project is to build the core platform for Future Internet applications. This platform is expected to dramatically increase the global competitiveness of the European ICT economy by introducing an innovative infrastructure for cost-effective creation and delivery of versatile digital services, providing high quality of service and security guarantees. As such, it will provide a powerful foundation for the Future Internet, stimulating and cultivating a sustainable ecosystem both for innovative service providers delivering new applications and solutions and for end users and consumers actively participating in the consumption and creation of content and services.

Within the framework of FI-WARE, Alcatel-Lucent Bell Labs Germany are actively contributing to a cornerstone of this platform, a Generic Enabler supporting the integration of applications and network infrastructure to optimize service delivery. In this context the ALTO protocol is seen as a promising candidate to expose network topology data to applications that are sensitive to the network topology but are unaware of it, which can thereby optimize the application traffic. To access such information from networks already equipped with an ALTO server, the Generic Enabler will include an ALTO client.

Considering the high interest from the MEDIEVAL consortium to contribute to the development of open source technology and the very good match with the strategic goals of the FI-WARE consortium, the MEDIEVAL project contributes to the FI-WARE project with the release of source code for core functions of an ALTO client handling the ALTO base protocol. The development in FI-WARE builds upon this and extends it with further ALTO protocol elements. Furthermore, FI-WARE will design and develop functions for processing and abstraction of the network data in order to provide an easy-to-use application interface. Alcatel-Lucent Bell Labs will benefit from feedback on and improvements of the ALTO client software gained in the course of the integration of the ALTO client into the FI-WARE Generic Enabler. Furthermore, this also highlights the relevance of MEDIEVAL vision and achieved results.

This is a very successful achievement of cross-fertilization between research projects at the forefront of Future Internet technologies.