

Introduction to the CELTIC Project

100 Gbit/s Carrier Grade Ethernet Transport

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The traffic on the Internet is increasing at a rapid speed. More bandwidth in the metro and core networks is required to cope with this steady increase. The project 100GET addresses this challenge by expanding the capacities of the Ethernet networking standard, which will be the dominant transport technology of next generation metro and core networks. The main goal of 100GET is to develop carrier-grade transport networks based on a data transmission rate of 100 billion bits per second over Ethernet at high quality. This talk gives an overview on the partners, organisational structure, and main research topics of the CELTIC Project 100GET. [1,2].

Partners in the 100GET project include leading companies and research institutes in the field of communications technology like ADVA Optical Networking, Alcatel-Lucent, Ericsson, Nokia Siemens Networks, Deutsche Telekom, and Fraunhofer Heinrich-Hertz-Institute. There are altogether more than 35 project partners from Germany, France, Sweden, and Finland. 100GET has a duration of three years until 2010 and a total budget of more than 60 million Euro. It is co-funded by the German Federal Ministry of Education and Research (BMBF), the French Ministry of Economics, Finance and Industry, the Swedish Governmental Agency for Innovation Systems (VINNOVA), and by the Finnish Funding Agency for Technology and Innovation (TEKES).

The project is structured into 4 columns each led by a system vendor as well as cross sectional activities on test beds, simulation tools, and measurement solutions. Four working committees ensure information exchange between the columns and address common issues, such as standardisation and dissemination.

The main research topics are carrier-grade packet transport solutions for a flexible, cost efficient, reliable and service independent transport network, physical layer technologies, advanced components, and subsystems. Field testing in a common platform is foreseen in order to evaluate the realised prototypes and demonstrators.

References

- [1] BMBF press release on the 100GET project; http://www.bmbf.de/_media/press/pm_20071211-250.pdf
- [2] CELTIC press release;
http://www.celtic-initiative.org/Publications/Press_releases/CELTIC_PR_2008_005.asp