CLONETS-DS Clock Network Services Design Study

Newsletter

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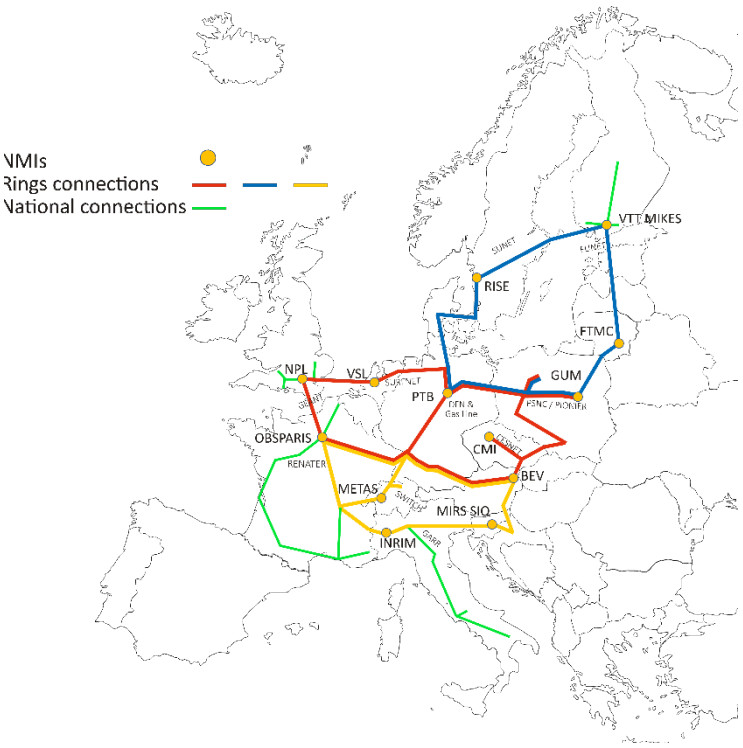
CLONETS-DS INTRODUCTION

The CLONETS-DS (Clock Network Services – Design Study) project aims to establish a pan-European time and frequency reference system as a European Research Infrastructure to serve the European science community. It is based on transmitting ultra-precise time and frequency information via optical fibre. The proposed project builds on several joint European projects and its direct precursor project, CLONETS. CLONETS-DS goes beyond previous efforts by designing a sustainable, pan-European, ultra-precise, time-and-frequency reference system available to the European research community. This Research Infrastructure considers user's needs, designs the required architecture, engineering models and roadmaps, and develops a sustainability model for future service, thus strengthening the European research area.

NETWORK TOPOLOGY

Partners of the CLONETS-DS project envision a ring-based topology of a T&F dissemination network. Each ring will have links to at least two optical clocks operated by National Metrology Institutes (NMIs), will share routes with its northern or southern counterpart, will allow future local extensions, and will allow for linear extensions such as those in Italy or Finland.



Topology of the CLONETS-DS network

The network will make use of already existing fiber-based national T&F infrastructure, where available, but will also need to acquire new connections. The network will be equipped with specialized equipment for the transmission of time and frequency signals.

The proposed topology will provide access for users in Europe to precise time and frequency signals at dedicated sites.

CLONETS-DS CONFERENCE PROMOTION

Project partners actively promote the CLONETS-DS project at international conferences. During the last six months, the CLONETS-DS attended and presented at four events. Project partner PIKTIME SYSTEM presented a poster at their booth in EFTF 2022, Paris. Project partner CESNET presented a poster at the CLEO conference in San Jose, USA. CLONETS-DS also presented at TNC22 in Trieste by PSNC. The last presentation was a short talk by project partner PTB at the NORDUnet conference in Reykjavik in September 2022.

The CLONETS-DS presentation at the TNC22 conference

PROJECT REVIEW

An online review of the CLONETS-DS project took place with EC reviewers on 29 June 2022. The leaders of each work package summarized the work delivered during the first 18 months of the project. This included the results of the workshop in Bad Honnef, as well as the proposed architecture of the CLONETS network. Dissemination and exploitation activities of the project via web pages, conference presentations and posters were also detailed.

It was proposed to extend the project for an additional 6 months, i.e., until the end of March 2023.

PROJECT PARTNERS

The Seven Solutions partner has been acquired by Orolia company. All Seven Solutions activities in the CLONETS-DS project have been taken up by Orolia company.

CLONETS-DS project participants

FUTURE ACTIVITIES

The CLONETS-DS project extends the work for another 6 months until March 2023.

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