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[EUROSERVER](#), a three-year project [launched in September 2013](#) participated in by BSC, is proud to present the video [“Scale-out architecture for energy efficient servers & micro-servers”](#). The video presents the new design and prototype technology, architecture and systems software that the project proposes for the next generation of micro-servers to be used in building datacentres.

EUROSERVER is reducing server energy consumption and cost by pioneering the use of 64-bit ARM cores and silicon interposer packaging, together with innovative techniques to improve software efficiency. As BSC Computer Sciences researcher **Paul Carpenter** explains, “BSC’s energy-efficient systems and runtime software supports inter-node memory capacity sharing, energy-efficient task and workload scheduling using COMPSs, and energy-aware virtual machine placement”.

EUROSERVER impact

The EUROSERVER project has led to two spin-off companies: [Kaleao Ltd](#), which is commercialising a next generation server solution, and [ZeroPoint Technologies AB](#), which introduces ultrafast and effective server memory compression. The EUROSERVER approach is being advanced and applied to high performance computing within three H2020-funded follow-on projects, [ExaNoDe](#), [ExaNeSt](#) and [ECOSCALE](#). EUROSERVER is the first project in the “EuroEXA” family, in which BSC has a central role. In ExaNoDe, which brings the EUROSERVER approach to high-performance computing, BSC brings its OmpSs programming model and HPC systems expertise.

About EUROSERVER

EUROSERVER brings together a European consortium, joining industrial technology providers, universities and research centres: NEAT (Italy) as the system integrator, ARM (UK) as the world leader in embedded high-performance processor IP, and STMicroelectronics (France), Europe’s leading semiconductor company, as well as OnApp (Gibraltar), which provides a complete IaaS platform for hosts, telcos and MSPs. In addition to the technology providers and users, EUROSERVER brings application, computer,

memory architecture expertise from Barcelona Supercomputing Center (Spain), TU Dresden (Germany), FORTH (Greece), and Chalmers (Sweden).

The project has a managed budget of 12.9 million euros, including 8.6 million euros funded by the European Commission's FP7 Programme plus significant indirect support from the industrial partners.

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