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*congatec’s Server-on-Modules with Intel® Xeon® processors are real-time capable and with a response time of 17 microseconds nearly latency free*

*Text and photograph available at:* [*http://www.congatec.com/press*](http://www.congatec.com/press) *Video:* [*https://www.youtube.com/watch?v=uXRoTD2dFpw*](https://www.youtube.com/watch?v=uXRoTD2dFpw)

**Press release**

**congatec teams up with OSADL to optimize the support for Real-Time Linux**

**Smooth implementation of hard real-time**

**Deggendorf, Germany, 21 June, 2018 \* \* \*** congatec – a leading vendor of standardized and customized embedded computer boards and modules – teams up with OSADL, Open Source Automation Development Lab eG, to optimize the board support for Real-Time Linux and showcase it in the OSADL test racks. In a first step, OSADL qualified congatec’s latest real-time Linux implementation that uses Linux kernel 4.9.47-rt37 on conga-TS170 Server-on-Modules equipped with the embedded server-class Intel® Xeon® processor (E3-1578L v5 @ 2.00 GHz). The COM Express Type 6 module mounted on the evaluation carrier board conga-TEVAL performed well in the tests, impressing in particular through one of the best-in-class real-time capabilities.

The challenge when implementing hard real-time Linux behavior lies in mastering all processing layers from BIOS to Linux kernel to user space, since the overall real-time capabilities are only as good as the weakest link in the chain. In addition, modern processors such as Intel’s Skylake family offer a wide range of energy saving features that must be balanced to the requirements of real-time computing. Executed in standardized racks, the OSADL quality assurance testifies that conga-TS170 Server-on-Modules are perfect for any real-time application. Target markets for these high-end modules for workstations and servers that also provide high-end graphics include high-speed test and measurement equipment, back-end systems in medical imaging, high-performance industrial workstations as well vision-based inspection systems and situational awareness platforms.

“The congatec module with the Intel Xeon E3 processor of the Skylake generation passed all tests and showed excellent response times,” sums up Dr. Carsten Emde, General Manager of OSADL eG. “We at OSADL are very pleased that congatec has joined our organization. congatec and OSADL fit together very well; our customers and members come from virtually the same industries and therefore benefit equally from our services. One of these services is the OSADL QA farm, where embedded systems with very high test depths are tested for their real-time capability and other features important for industry.”

“Teaming up with OSADL is a great advantage for both our customers and our own engineering team, as we all benefit from the joint forces for our real-time Linux developments. OSADL membership provides a vendor independent testimonial of our high-quality engineering and we receive great support with licensing questions as well. Joint engineering projects for new open source solutions also help us to concentrate on our own core competences – offering competitive advantages for our customers by simplifying the use of embedded computer technology”, explains Carsten Rebmann, Director R&D at congatec.

Linux and real-time Linux implementations dominate in embedded system designs, with 58% of all new projects expected to start with Open Source (OS) and nearly the same amount of projects (59%) involving real-time[[1]](#endnote-1), as the latest surveys indicate[[2]](#endnote-2). Because of this outstanding importance of real-time computing, congatec products support all major real-time capable OS from both x86 and ARM technologies. These include first and foremost real-time Linux but also further RTOS such as VxWorks or QNX, as well as deterministic hypervisor and virtualization technologies from vendors such as Real-Time Systems. congatec’s membership in the OSADL foundation rounds off this engagement. More information about the performance of the conga-TS170 Server-on-Module can be found at OSADL QA Farm rack no. 5, slot no.3 (<https://www.osadl.org/?id=1305>).

For more information about the conga-TS170 Server-on-Module please visit the product page <http://www.congatec.com/en/products/com-express-type6/conga-ts170.html>

**About congatec**congatec is a leading supplier of industrial computer modules using the standard form factors COM Express, Qseven and SMARC as well as single board computers and customizing services. congatec’s products can be used in a variety of industries and applications, such as industrial automation, medical, entertainment, transportation, telecommunication, test & measurement and point-of-sale. Core knowledge and technical know-how includes unique extended BIOS features as well as comprehensive driver and board support packages. Following the design-in phase, customers are given support via extensive product lifecycle management. The company’s products are manufactured by specialist service providers in accordance with modern quality standards. Headquartered in Deggendorf, Germany, congatec currently has entities in USA, Taiwan, China, Japan and Australia as well as United Kingdom, France, and the Czech Republic. More information is available on our website at [www.congatec.com](http://www.congatec.com) or via [Facebook](http://www.facebook.com/Congatec), [Twitter](https://mobile.twitter.com/congatecAG) and [YouTube](http://www.youtube.com/congatecAE).

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1. <https://m.eet.com/media/1246048/2017-embedded-market-study.pdf> (Page 26) [↑](#endnote-ref-1)
2. <https://www.linux.com/news/event/elce/2017/linux-and-open-source-move-embedded-says-survey> [↑](#endnote-ref-2)