

## Press Release

## embedded world 2021 DIGITAL

# eSOL extends eMCOS® Hypervisor's industry standard support

**Paris and Tokyo, February 25<sup>th</sup>, 2021** – eSOL, an innovator and development specialist in embedded software systems, will be showcasing its industry-leading eMCOS<sup>®</sup> Hypervisor at this year's embedded world Exhibition & Conference DIGITAL. Participants will have five days at their disposal from March 1-5, 2021, to learn more about eSOL's popular embedded virtualization function eMCOS Hypervisor.

#### **MCOS** Hypervisor Adaptive AUTOSAR Bridge **ROS 1/2** (shared device Real-time Applications **:::**ROS CIOSCUD **:::**2 eMCOS Hypervisor Extension eMCOS POSIX MK MK MK MK MK MK MK: Microkernels of Multikernel

MK: Microkernels of Multikernel VMM: Virtual Machine Monitor

Addressing the needs of design and development engineers in every embedded industry, eMCOS Hypervisor enables the integration of both RTOS and general-purpose OS to run concurrently on a single hardware platform, with full time and space isolation provided inside a mixed-criticality system. eSOL will present this year how the eMCOS Hypervisor enables the implementation of the open-standard virtio interface for sharing physical or virtual resources, to allow re-usage of Linux applications code, among other advantages and features of the solution.

One of the important aspects of software development is reusability, and eSOL's eMCOS Hypervisor implements support for common virtio device interfaces to allow Guest OS to access shared devices, making it possible to deploy a Linux image without other modifications than the integrator-level <u>device-tree</u> to specify both physical and virtual devices.

Rolland Dudemaine, Vice-President Engineering at eSOL Europe, points out: "the eMCOS Hypervisor also supports sharing the physical devices using 'bridges' running as POSIX real-time applications directly on the Hypervisor native environment, without the overhead of a Controlling Guest OS. These bridges can act as simple software-defined routers, but are also an ideal location to implement specific functionalities like encryption, an intrusion-detection-system, and/or rate limiting. If needed, physical devices can be directly passed to the Guest OS for best reuse of existing device drivers without sharing capability."



Bob N. Ueyama, Executive Vice President of eSOL, concludes: "eSOL's participation to embedded world 2021 DIGITAL testifies to the recent growth of our European business and our strategy to be a global leader. We look forward to engaging with visitors and demonstrate our eMCOS scalable RTOS platform including eMCOS Hypervisor."

Come and visit eSOL's Virtual Booth (www.esol.com/event/event 32.html) at the 2021 embedded world Exhibition & Conference, and discover how the company's eMCOS Hypervisor and eMCOS scalable RTOS can help your design efforts. eSOL engineers will also be available during the event to discuss with you in a real-time chat about your realtime needs!

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#### About eSOL Co., Ltd

Founded in 1975 and listed on the First Section of the Tokyo Stock Exchange (TSE: 4420), eSOL is a leading global company in the fields of embedded systems and edge computing that seeks to contribute to a safer and better-connected society. eSOL's high-performance and scalable software platform products and first-class professional services, centered around its unique and patented eMCOS multikernel real-time operating system (RTOS) technology, are used worldwide in demanding embedded application fields which conform to stringent quality, safety and security standards. This includes automotive systems as well as industrial equipment, satellites, medical and digital consumer electronics. In addition to the research and development of its leadingedge products, and joint research with major manufacturers and universities, eSOL is actively engaged in AUTOSAR, Autoware and multi/many-core technology standardization activities.

For more information, please visit: <a href="https://www.esol.com/">https://www.esol.com/</a>

- \* Autoware is an open source software built on ROS/ROS 2 for autonomous driving.
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### Contacts for inquiries relating to this press release

Benoit Simoneau 514 Media Ltd. +44 7891 920 370 benoit@514-media.com

Laurent Mares eSOL Europe +33 (0)6 07 57 74 98 laurent.mares@esol.com

eSOL Marketing Office eSOL Co., Ltd. media@esol.co.jp

URL: <a href="https://www.esol.com/">https://www.esol.com/</a>

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